FHI 059, Version 13	Iss	ued by: FHI	Date of issue: 12/05/2020				
Case No: 2025-0021			Date of visit: 28/01/2025				
Time spent on site: 4.	5h	Main Inspect	or:				
Site No: FS0914 Business No: FB0125	Site Name: Business Name:	Lismore West Scottish Sea Farms Ltd					
Case Types: 1 ECI 2	2 CNI 3 SLI	4 VMD 5 DIA	6				
Water Temp (°C): 9.1	Thermometer No:	T173	FHI 045 completed N/A				
Observations:	Region: ST	Water type: S	CoGP MA M-36				
Dead/weak/abnormally behaving fish present? Clinical signs of disease observed? Gross pathology observed? Diagnostic samples taken? Y If yes, see additional information/clinical score sheet. Y If yes, see additional information/clinical score sheet. Y If yes, see additional information/clinical score sheet. Y							
UNI/REG only - if unable to carry	out intended visit detail re	ason below:					

Additional Case Information:

Peaks in salmon mortality 2023 wk 18 1717 (1.2%), wk 19 2327 (2.0%), wk 20 3281 (4.5%), handling during harvesting underlying gill health issues.

Peaks in salmon mortality 2024 wk 47 10,999 (9.4%), wk 48 19190 (4.7%), wk 49 10,301 (2.3%), wk 51 6060 (1.4%). AGD, moritella, SRS.

Salmon morts for last four weeks wk 4 4904 (1.3%), wk 3 10493 (2.6%), , wk 2 1816 (0.5%), wk 1 6310 (1.5%). AGD, moritella, SRS

Wrasse mortalities last 4 weeks 181 (0.83%) background mortalities.

No consent for SLICE. Fish are input to Lismore East and transferred to Lismore West at around 1kg so that SLICE can be used in the early stage of SW production. A risk assessment of these SW to SW transfers had been completed and was available for inspection.

The CoGP management area M-36 is an area of non synchronous production/fallowing, the required risk assessment was in place.

All pens had a number of moribund fish with lesions on the flanks. Five fish were removed for diagnostic sampling.

FHI 059, Version 13		_	Issu	ed by: FHI	_		Date of issue	e: 12/05/2020	
Case No:	2025-0021		Site No:	FS0914					
Date of Visit:		28/01/2025]		Inspector(s):				
Registration/Author	orisation Deta	ails							
1. Business/site deta			ite representa	ative?			Υ		
2. Changes made to	•	,	·				N		
Site Details (includ	le cleaner fis	h for all sect	ions)						
Total No facilities		8	Facilities sto	cked	6	No facilitie	s inspected	8	
Species	SAL	WRA					I		
Age group	2024 Q2	wild							
No Fish	376,567	21,558							
Mean Fish Wt	1.9kg	mix							
Next Fallow Date (S	ite)	August 2025		Next Input Da	ite (Site)	Feb 2026			
Recent (last 4 wks)	disease probl	ems?		Y	Any escapes	(since last	visit)?	N	
If yes, detail:	AGD, SRS, I	Moritella							
 Are records comp Are movement re Are records comp Are health certific Transport Records Are any movement 	cords availab blete and corre ates for introd ates carried ou	le for dead fisectly entered? luctions (outv	sh and waste? ? vith GB) availa half) of the bu	able? usiness (not us	· ·			Y Y N/A	
If yes, is there a sys	tem in place f	or maintenan	ce of transpor	rtation records	?			Y	
Mortality Records									
1. Mortality records		•						Y	
2. How are mortalitie					Incinerated -	on site			
If other detail:				whole fish to B	arkip			V	
3. Mortality records	•	correctly ent						Y	
4. Recent mortality	` '	4		al information				V	
5. Evidence of recer				/				Ť	
If yes, facility nos/no		racility/no sto	ock per facility	reason:					
see additional inform		ring paried of	a alcad?					V	
6. Any other peaks i If yes, detail:		<u> </u>						'	
7. Have increased (see Addition			vot or EUI2				N/A	
If yes, detail action:	unexplained)	nortanties De	en reported to	VOLUI FIII?				14//	
•	rente' hoon ro	norted to EUI	2 If no onter	details on mort	tality events of	neet		V	
Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.									

Treatments and Medicines Records	
1. Recent treatments (see comment)?	Y
If yes, detail: Medicinal TMS	
If other, detail: Non medicinal, FW, thermolicer, FLS,	
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)?	
If other, detail:	
6. Are medicines stored appropriately?	Y
Biosecurity Records	
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	V
is detected been included and <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	T
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher	ì
health status, certification if required)?	
C. Have the head and a condition and his converte management and between each epidemiological unit to minimize	<u> </u>
6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)?	'
7. Is documentation available regarding the measures in place to maintain the physical containment of	Y
aquaculture animals held on site?	
8. Have the biosecurity procedures been adequately implemented on site?	Y
If no, detail:	
ii no, dotaii.	
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).	
Records checked between: 30/3/2023 to 28/1/2025	

•	111 000, 10101011 10			_	.=				-				
	Case no:	2025-00)21	Site No:		FS0914			Date of Samplin		28/0	1/2025	28/0
	Priority samples:	VI		ВА		PA		MG		н			
	Time sampling starts/ends:	12:0	0:00	13:3	0:00	1	Inspect	or:			VMD No.		5
	Environmental conditions:	1	Indoors	2		3		4		5			
	Summary samples	HIST	Y	ВА	Y	MG	Y	VI		PA	ī	Γotal Sa	mples
	dd Figh/Doolo gligh												
_	dd Fish/Pools - click												
	Pool/Fish No	F1	F2	_		F5							
	Fish nos	1	2	3	4	5	6	7					
	Pool Group	P1	P1	P1		P1							
	Species	SAL	SAL	SAL		SAL	SAL	SAL					
	Average weight	1.5kg	1.5kg	1.5kg	1.5kg		2kg	2kg					
	Sex	N/A	N/A	N/A		N/A	N/A	N/A					
	Water Type	SW	SW	SW	SW	SW	SW	SW					
		st	st	st	ıst	st	st	st					
ď	2	East	East	East	East	East	East	East					
Details		<u>e</u>		re		<u>e</u>		ē					
		Lismore	l e	_ismore	Lismore	Lismore	Lismore	m 0					
Stock	Stock Origin	Lisi	Lismore	Lisi	Lisi	Lisl	Lisi	Lismore					
ť.	Facility No	3	3	3		3	8	8					

01/2025 Additional Sample Information:

Additional histology lesion samples taken for all fish.

Bacteriology, split plates used for all fish due to plates available, additional lesion samples taken, plates are labelled to identify source.

5 Total Tests assigned 5

FHI 059, Version 13 Issued by: FHI Date of issue: 12/05/2020 Method of killing: Percussive Case no: 2025-0021 Site No: FS0914 Inspector(s): Sheet Relevant: Y 28/01/2025 Date of visit: S for strong presence: M for medium presence: W for weak presence Fish Number Time sampled after death (if > 45 minutes) External Signs Moribund Behaviour S S 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 Exophthalmic Eyes Enophthalmic (sunken) Cataract Haemorrhagic М Gills Zoned **Necrotic** Lesions Flank Elsewhere Vent Inflamed Trailing faeces Lice Load Estimate numbers Internal Signs S S **Ascites** Clear S Bloody In tissues Oedema Heart Pale/anaemic Granulomas Deformed M М М M Liver Petechial haem Gross haem Tissue breakdown **Enlarged** Colour number(s) Granulomas Lesions Petechial haem Pyloric caeca Tubules mauve Lack of fat Spleen **Enlarged** Granulomas Gut No food present Yellow pseudo-faeces **External haem** Internal haem Body wall Haemorrhaging Haemorrhaging Swim bladder

W

W

Fluid filled

Swollen Grey

Granular
Liquefied
Parasites present

Anaemia

Kidney

General

Case no: 2025-0021

Date of visit: 28/01/2025

Zoned Necrotic N								
Fish Number Time sampled after death (if > 45 minutes) External Signes Behaviour Lethargic Hanging vertical Spiralling Flashing Flared Flashing	S for strong presen	nce: M for medium presence: W fo	rw					
Time sampled after death (fr. 45 minutes) Echarol Signs Behaviour Moribund Lethargic Hanging vertical Spiralling Flashing Flashing Flashing Dark Distended abdomen Anorexic Scale Codema Schoemed Schoeme		·						
External Signs Behaviour Lethargic Hanging vertical Spiralling Flashing Flashing Flashing Loss of equilibrium Body Dork Distanded abdomen Anorexic Scale Oedema Opercula Shortened Flared Flare		er death (if > 45 minutes)						
Behaviour Moribund		or death (ii > 40 initiates)						
Lethargic		Moribund						
Nanging vertical	Dellavioui							
Spiraling								
Flashing								
Loss of equilibrium								
Body								
Distended abdomen								
Anorexic Scale Oedoma Scale Oedoma Scale Oedoma Shortened Flared Shortened Flared Shortened Sh	Body							
Scale Codoma								
Opercula Shortened								
Flared								
Haemorrhaging Throat	Opercula							
Ventrum								
Base of fins	Haemorrhaging							
Elsewhere								
Eyes								
Enophthalmic (sunken)								
Cataract	Eyes							
Haemorrhagic		Enophthalmic (sunken)						
Gills								
Gills		Haemorrhagic						
Zoned	Gills							
Lesions		Zoned						
Lesions								
Elsewhere	Lesions	Flank						
Trailing faeces		Elsewhere						
Trailing faeces	Vent							
Lice Load								
Internal Signs	Lice Load							
Ascites Clear Bioody 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 Lack of fat Spleen Enlarged Granulomas Granulomas Granulomas Lack of fat Spleen Enlarged Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Swollen Granular Liquefied General Farsites present Anaemia	2.00 2000	Zetimate mambere						
Ascites Clear Bioody 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 Lack of fat Spleen Enlarged Granulomas Granulomas Granulomas Lack of fat Spleen Enlarged Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Swollen Granular Liquefied General Farsites present Anaemia	Internal Signs							
Bloody		Clear						
Deformed	Asciles							
Heart	Oodoma							
Granulomas								
Deformed	пеан							
Liver								
Gross haem	1 2							
Tissue breakdown Enlarged Colour number(s) Canulomas Can	Liver							
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 Internal haem Sody wall Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Granular Liquefied General Parasites present Anaemia								
Colour number(s) Granulomas Cesions Ce								
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 Granular Liquefied General Parasites present Anaemia								
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 Grey Granular Liquefied General Parasites present Anaemia								
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 Grey Granular Liquefied General Parasites present Anaemia								
Lack of fat	Pyloric caeca							
Spleen Enlarged								
Granulomas Gut No food present Yellow pseudo-faeces External haem Internal haem Body wall Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Grey Granular Liquefied General Parasites present Anaemia								
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	Spleen							
Yellow pseudo-faeces External haem Internal haem Body wall Haemorrhaging Swim bladder Fluid filled Kidney Grey Granular Liquefied General Parasites present Anaemia								
External haem Internal haem Body wall Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Grey Granular Liquefied General Parasites present Anaemia	Gut							
External haem Internal haem Body wall Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Grey Granular Liquefied General Parasites present Anaemia								
Internal haem Body wall Haemorrhaging Swim bladder Haemorrhaging Fluid filled Kidney Swollen Grey Granular Liquefied General Parasites present Anaemia		External haem						
Swim bladder Haemorrhaging								
Swim bladder Haemorrhaging	Body wall							
Fluid filled	Swim bladder							
Kidney Swollen								
Grey	Kidney							
Granular Liquefied General Parasites present Anaemia								
Liquefied Seneral Parasites present Seneral Se								
General Parasites present Anaemia								
Anaemia	General							
	Control							
		, aluoiniu						

HI 059, Version 13	Issued by: FHI	Date of issue: 12/05/20
additional comments:		
		I
		I
		I

FHI 059, Version 13		Issued by: FHI			Date of	of issue	: 12/05/2020
Case Number:	2025-0021		Site No:	FS0914		Insp:	
Date of Visit	28/01/2025		No of mo	ovements/s	supp./dest.		Score
Live fish movements			0	1-5	6-10	>10	
Movements on (from out	Frequency of m	novements on from equivalent MS	0	5	10	14	0
with GB) of susceptible species		novements on from equivalent zone or	0	0	10	26	0
GP 6 5 1 5 5	Number of sup	ncluding third country	0		18 10	26 14	0
A	ļ.						10
Movements off	Frequency of m		0		6	10	10
Exposure via water	rtamber er dee	Site contacts					
Water contacts with other	Farm is protect	ed (secure water supply through		1			
farms (holding species susceptible to same	disinfection or l	•	0				
diseases)	farms upstream	or in a coastal zone with category I n or within 1 tidal excursion	1	2	4		2
		or in a coastal zone with category III or within 1 tidal excursion	1	3	6		
		or in a coastal zone with category V n or within 1 tidal excursion	1	4	8		
Management practices			None	Secure	Unsecure		
Water contacts with processors	Any processing	g plant discharging into adjacent waters	0	1	2		1
On farm processing within the rules of the directive	No on farm pro	cessing	0				0
	Processing own	n fish (re-cycling risk)	1				
	Processing fish	from MS of equivalent status	2				
	Processing fish equivalent statu	from zone or compartment of us	4				
	Processing fish	from Category III farm	8				
	Processing fish	from Category V farm	10				
Disposal of fish and fish by-	Site's own was	te only processed.	0				0
products	Common proce	esses with other farms	3				
	Collection poin	t for waste from other farms	5]			
Use of unpasteurised feeds	No feeding of u	inpasteurised feed	0	1			0
	Feeding unpas	teurised feed	5	Ì			
Biosecurity		Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating	from single shorebase	0	1	2		0
	Sites sharing s	taff and equipment	0	1	2		0
Disinfection of equipment between sites, use of	Yes		0				0
footbaths etc	No		1				
CoGP/Regulator							
Practices in accordance with regulator or industry	Yes		0				0
code of practice	No		3				
Platform access to cages	Yes		0				0
	No		2				
					Total		16
					Rank		MEDIUM

Case No:	2025-0021	Site No:	FS0914	
Sea Lice Inspection (S	Seawater Sites Only) nced sea lice problems in the previous 4 years?			N
·	lanagement Area (or equivalent) fallowed synchronol	usly on a single	vear class basis?	N
3. Does the site have a azamethiphos and ema	access to a range of licenced in-feed and bath sea licence amectin benzoate) as well as access to suitable biologyed in a reasonable period of time?	e medications (in	cluding deltamethrin,	N
4. Is there a signed doo Management Area (or e	cumented farm management agreement or statement equivalent)?	t relevant to the s	site and CoGP Farm	Υ
	cords available for inspection? (Legal SSI, CoGP Analy reflect the required standard specified in the SSI and are standard specified in the standard specifi	•	Legal SSI, CoGP Annex 6)	Y Y
7. Are sea lice (<i>L. salm</i> records are inspected?	nonis) record levels below the suggested criteria for tr (CoGP Annex 6)	eatment in the C	coGP during the period that	N
•	female sea lice (<i>L. salmonis</i>) numbers per fish been 0/6/19) during the period that records are inspected?	at a level of 3 or	above (prior to w/b 10/6/19) o	r Y
If yes, have these been	reported to the Fish Health Inspectorate? If no, FHI	see comment.		Υ
9. Is C. elongatus infes	station at a level which is considered to cause signific	ant welfare prob	lems? (CoGP 4.3.81, 5.3.50)	N
suggested criteria for tr	eatments been administered or other actions taken we reatment or where <i>C. elongatus</i> is considered to have on been taken (where applicable)?			N/A
-	eatments or the actions taken had a significant impac	ct upon the lice le	evels recorded?	Y
·	ere conducted, carried out in cooperation between pa	•		N
	g strategy for the site, where fewer populations or pa	•		Υ
	ific written lice management procedure with waypoint luring the escalation of a sea lice infestation?	s describing set	actions to deal with	Υ
16. Do the sea lice leve	els observed on stocks reflect sea lice count data? If	no please detail	reasons.	Υ
Containment Inspecti	on			
•	nced equipment damage due to predators in the curre	ent or previous p	roduction cycles?	N
·	ce to mitigate against the predation experienced on s	•	•	Υ
HDPE, sapphire nets	s, top nets, froya rings and sliders.			
If other, detail below:				
0.11				Th.
If Yes proceed with que	ints or events been experienced on or in the vicinity of estions $4 - 9$. If No skip to question 10	t the site since tr	ne last FHI inspection?	N
·	ported to Scottish Ministers?	OD 4407.5	4.47)	
·	ported to local DSFB forthwith (where they exist)? (Co ported to the SSPO and local fisheries trusts forthwith		,	
o. Have these been rep	onted to the SSI O and local lisheres trusts forthwith	(Where they exis	51): (0001 - 4.4.51, 5.4.11)	
7. Were methods (if any	y) used to recover escapees? If yes give detail			
9 If all note were deale	aved was this action agreed with local wild fish interes	ete and was norm	niccion givon by Coottich	
Ministers? (Legal, CoG	·			
	en to prevent and minimise the risk of further escape	s? (Not covered	in code but could	
	r satisfactory measures of the Act) d as satisfactory with regards to containment? If no, p	lease detail reas	son(s)	Υ

Issued by: FHI

FHI 059, Version 13

Date of issue: 12/05/2020

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Case No: 2025-0021	Site No: FS0914	
Date of Visit: 28/01/2025	Inspector:	
Date 01 VISIL. 20/01/2023	ilispector.	
Point of Compliance		
1. Is the farm under inspection located w		Υ
If N, no further questions require complet	tion.	
Points of Compliance for Both Farm M	lanagement Agreements and Statement	ts.
•	ement or statement (FMAg/S) been prepar	
3. Is the current FMAg/S available for ins	` • · · · ·	Y
4. Does the FMAg/S identify the relevant		Υ
5. Does the FMAg/S identify the fish farm	• • • • • • • • • • • • • • • • • • • •	Y
•	commencement of the agreement or stater	ment?
7. Does the FMAg/S identify the date of r	eview?	Y
Arrangements for Fish Health Manage	ment	
8. Does the FMAg/S identify the minimun	n health standards for the stocks to be intr	oduced to the area or
farm?		
	ion requirements for stocks held in the are	
	s of fish which may be stocked into the are	
11. Does the FMAg/S identity the maximindividual farm?	um stocking density of any pen on any farr	n in the area or the
	ements for the storage and disposal of any	dead fish from any fish
farm in the area or the individual farm?	ÿ ,	,
Arrangaments for The Management of	: Can Lina	
Arrangements for The Management of 13. Does the FMAg/S identify arrangeme	ents for the sharing of data on sea lice num	bers and treatments?
•	ility and the use of medicines on farms co	vered by the agreement Y
of statement?		V.
 Does the FMAg/S identity any require lice on farms in the area or individual farr 	ements for the sensitivity testing of availabl	e treatments for sea
	ns: stances under which biological controls an	d cleaner fish are to be
used on farms in the area or individual fa		d cicarior fish are to be
	ements for synchronous treatments on farm	d cleaner fish are to be Y ms within the area? Y
Live Fish Movements		V
18. Does the FMAg/S identify the circums area or farm?	stances when live fish may be introduced of	or removed from the
	ements for the movement of live fish on an	
individual farms?		of the the tree of

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Harvesting 20. Does the FMAg/S identify acceptable	e harvest practices on farms in the area or indiv	vidual farms?
date when a farm or area may be restoc 22. Does the FMAg/S identify whether or agreement or statement?	ne or more year classes may be stocked onto s roodstock or potential broodstock are to be kep	sites covered by the
Point of Compliance for Farm Manage 24. Does the farm management agreem parties to the agreement?	ement Agreements Only nent include arrangements for persons to becon	ne, or cease to be, N/A
Management and operation 25. Is the fish farm being managed and 26. What is the version no/date of issue	operated in accordance with the agreement or of the FMAg/S? 02/12/2024	statement?

 Case No:
 2025-0021
 Date of visit:
 28/01/2025

 Site No:
 FS0914
 Inspector:

Results Summary	Freq.	Date of Notification							
·		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp	
IPN (PCR) - IPNM	0/5	04/02/2025		04/02/2025		27/02/2025			
ISA (real time qPCR - heart & kidney) - ISAQ	0/5	04/02/2025		04/02/2025		27/02/2025			
Piscine myocarditis virus (CMS) (PCR) - PMVP	0/5	04/02/2025		04/02/2025		27/02/2025			
VHS (PCR) - VHSP	0/5	04/02/2025		04/02/2025		27/02/2025			
AGD (Neoparamoeba perurans) (PCR) - AGDQ	5/5	04/02/2025		04/02/2025		27/02/2025			
Paranucleospora theridion (PCR) - PNST	5/5	04/02/2025		04/02/2025		27/02/2025			
IHN (PCR) - IHNP	0/5	04/02/2025		04/02/2025		27/02/2025			
Salmon gill poxvirus (PCR) - SPVP	5/5	04/02/2025		04/02/2025		27/02/2025			
Salmonid alphavirus (SAV) (PCR) - SALP	0/5	04/02/2025		04/02/2025		27/02/2025			
Vibrio species (culture) · VSPE	5/5	17/02/2025		17/02/2025		27/02/2025			
Moritella viscosa - VVIS	1/5	17/02/2025		17/02/2025		27/02/2025			
Amoebic gill disease (histology) - AMGD	3/5	21/02/2025		21/02/2025		27/02/2025			
Complex gill issues (histology) - CGDH	5/5	21/02/2025		21/02/2025		27/02/2025			
Epitheliocystis - EPIT	1/5	21/02/2025		21/02/2025		27/02/2025			
Gill pathology - GPAT	5/5	21/02/2025		21/02/2025		27/02/2025			
Muscle pathology - MPAT	5/5	21/02/2025		21/02/2025		27/02/2025			
Skin ulcers - SULC	5/5	21/02/2025		21/02/2025		27/02/2025			
Skin pathology - SKIN	5/5	21/02/2025		21/02/2025		27/02/2025			

Report Summary			
Case Type	Date	Insp	2 nd Insp
ECI,CNI,SLI,VMD	05/02/2025		
DIA	27/02/2025		



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 Business No
 FB0125
 Date of Visit
 28/01/2025

 Site No
 FS0914
 Site Name
 Lismore West

 Case No
 20250021
 Inspector

Section 1: Summary

During a routine site inspection a number of moribund salmon were observed in each pen, five were removed for further examination and subsequent diagnostic sampling.

Histopathology examination revealed bacterial ulcerative lesions on the skin which may impact on the osmotic balance of the fish. Complex gill issues with mild proliferative branchitis, AGD and epitheliocystis were also observed.

Gill samples tested by qPCR were positive for the gill related pathogens: *Neoparamoeba perurans* (AGD), *Paranucleospora theridion* and salmon gill poxvirus (SGPV) which support the histopathology observations.

Moritella viscosa was identified, whilst it is a primary fish pathogen, the level and purity of growth would not suggest it is present as the source of morbidity. Four *Vibrio* spp. were also identified, the heavy mixed growth observed would suggest that these bacteria would be implicated in the morbidity of the fish sampled, but each as an individual, would not be the source of morbidity.

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

Section 2: Case Detail

Observations

The site was inspected as part of the FHI statutory inspection and sampling programme. Elevated mortalities had been occurring on the site for a number of weeks prior to the inspection the cause of these being complex gill issues and winter sores.

On inspection of the site a number of moribund and lethargic fish were observed in each pen, five were removed for diagnostic sampling.

Externally all fish had skin lesions on the flanks. The gills of F1, F2 and F5 were pale and F1, F2, F4 and F5 appeared necrotic.

Internally F3, F4 and F5 had clear ascites, the hearts of F2, F3, F4 and F5 were deformed and the liver of F5 had gross haemorrhaging and tissue breakdown. Yellow pseudo faeces was present in F1, F3, and F5 and the kidney of all fish was slightly granular.



<u>Samples</u>

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

Fish number	Facility number	Species	Stage	Origin
F1-F5	3	Atlantic salmon	1.5kg 2024 Q2	Lismore East

Results

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

The following bacteria were isolated from fish F1-F5

- Moritela viscosa (kidney F1)
- Vibrio spp,. (kidney and lesion F1 F5)

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

Salmon gill poxvirus

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.33	30.93	31.03	31.27	POSITIVE
F2	22.30	37.02	36.56	36.20	POSITIVE
F3	21.77	25.49	25.26	25.34	POSITIVE
F4	21.73	34.01	34.00	33.64	POSITIVE
F5	21.69	25.06	25.03	25.08	POSITIVE

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

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	21.33	27.24	27.30	27.33	POSITIVE
F2	22.30	28.31	28.25	28.25	POSITIVE
F3	21.77	29.76	29.79	29.81	POSITIVE



F4	21.73	28.82	28.66	28.64	POSITIVE
F5	21.69	28.23	28.17	28.16	POSITIVE

Neoparamoeba perurans (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.33	29.34	29.47	29.34	POSITIVE
F2	22.30	30.89	30.88	31.00	POSITIVE
F3	21.77	28.06	28.27	28.11	POSITIVE
F4	21.73	29.49	29.32	29.46	POSITIVE
F5	21.69	28.70	28.75	28.81	POSITIVE

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

Histopathological examination revealed the following:

Gill: Lamellar hyperplasia and fusion, mild, multifocal (F1-F5) and some tip clubbing observed in all. Some multifocal epithelial lamellar thickness (F3). F2 and F5 also displayed small foci of epithelial necrosis. Several basophilic epithelial inclusions (likely epitheliocystis) observed in F5 and several amoeboid cells resembling Neoparamoeba perurans observed in F1, F4 & F5. Some aneurysmal dilation/telangiectasia (F1-F5) and some cellular debris among gill filaments with bacteria associated (F5).

Skin & Muscle: F1-F5 lesion: Absence of the epidermis, presence of a mat Gram-negative bacteria at the dermal outer layer and within dermis and musculature, myositis, haemorrhage and some to moderate inflammatory cell infiltrated observed in all fish.

Heart: Very minor multifocal myocarditis (F1, F2, F4). Mild epicarditis (F1-F3). F5 displayed foci of muscular degeneration at the compact layer.

Gut and pyloric caeca: Peritonitis, mild, multifocal (F2-F3). Foci of abdominal adipose tissue haemorrhage (F2, F3).

Pancreas: Within the normal range.

Liver: Hepatocellular necrosis, mild, multifocal (F5). F2 displayed few scattered apoptotic cells. Hepatocellular vacuolation (macrovesicles), mild, multifocal (F1).

Kidney: Occasional erythrophagocytosis (F1). Some reduction of interstitial cell (haematopoietic) with some circulating inflammatory cell (F4, F5).

Spleen: Some necrosis and haemorrhage (F2). Some peritonitis in F4).



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

Signed:

Date: 28/2/2025

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)



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

Business No FB0125 Date of Visit 28/01/2025 Site No FS0914 Site Name Lismore West Case No 20250021 Inspector

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

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

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.

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. R25



Samples were taken to be analysed for veterinary residues.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

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

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

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F1-5





F1 F1





F2 F2



