From: <REDACTED>(MARLAB)
Sent: 05 October 2021 12:12

To: '<REDACTED>@argyllfisheriestrust.co.uk' <<REDACTED>@argyllfisheriestrust.co.uk>

Cc: MS FishHealth < MS. FishHealth@gov.scot>; Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>

Subject: RE: E - Sea lice in Loch Etive - < REDACTED>

Hi <REDACTED>,

In Charles' absence your query has been forwarded to me. We can understand your concern regarding the reported lice numbers on aquaculture animals at the four sites in Loch Etive operated by Dawnfresh Farming Ltd.

The Fish Health Inspectorate are monitoring the situation and are following the current regulatory framework and Scottish Government policy in place for the management of sea lice on aquaculture animals held in Scottish fish farms. The Fish Health Inspectorate will undertake any necessary actions described in the enforcement regime for sea lice regulation on aquaculture animals which is detailed in the flow diagram on the following Topic Sheet:

### 71+The+Regulation+of+Sea+Lice+in+Scotland+2021.pdf (www.gov.scot)

We believe the sites have had an environmental challenge which has affected gill health with subsequent handling, during husbandry operations to manage sea lice, resulting in elevated mortality. The removal and disposal of the unexpected elevated mortality has been impacted by logistical issues for the company. We also understand the sea lice burden has increased as further husbandry operations have been necessarily postponed, whilst the gill health of the aquaculture animals has been improving. Importantly, the company have indicated that they are reducing the biomass at the sites by harvesting for human consumption, whilst also undertaking targeted sea lice interventions to reduce sea lice numbers in particular pens.

The Fish Health Inspectorate attended the Etive 6 site on 23 September 2021 due to a reported containment issue. Following the continued reports of elevated sea lice numbers on the four sites in operation, further surveillance is being undertaken in relation to the requirement to have satisfactory measures in place for the prevention, control and reduction of sea lice on aquaculture animals under the Aquaculture and Fisheries (Scotland) Act 2007. Following this surveillance the Fish Health Inspectorate will decide on any subsequent advice, recommendations or enforcement action.

Let me know if you have any further queries please

# Regards <REDACTED>

#### <REDACTED>

Technical Manager - Fish Health Inspectorate

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375, Victoria Road | Aberdeen AB11 9DB

Tel: +<REDACTED>

S/B: +44 (0)131 244 2500

Mob:+<REDACTED>

FAX: +44 (0)131 244 0944

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

**From:** <REDACTED> <<u>REDACTED</u>>@argyllfisheriestrust.co.uk>

Sent: 01 October 2021 17:46

To: MS FishHealth < MS.FishHealth@gov.scot > Subject: Fw: E - Sea lice in Loch Etive - < REDACTED >

Dear FHI, I have received an automated response from Charles Allen's e-mail to redirect my enquiry to this address.

Please let me know if this should be redirected to another address.

**Best Regards** 

### <REDACTED>

From: <REDACTED> << REDACTED>@argyllfisheriestrust.co.uk>

Sent: 01 October 2021 17:30

To: Charles. Allan@gov.scot < Charles. Allan@gov.scot >

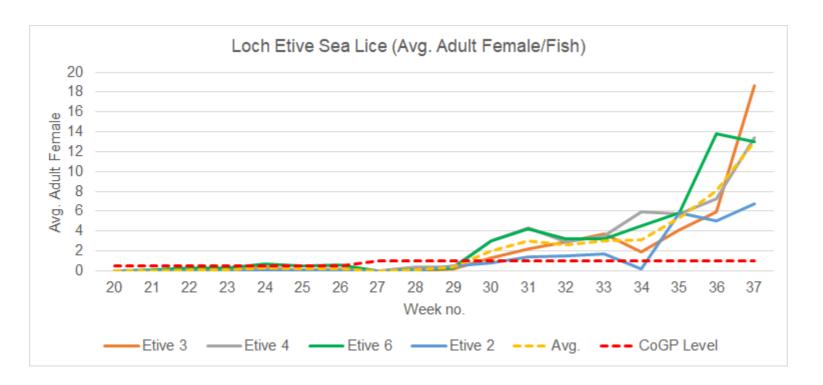
Cc: <REDACTED>@icloud.com>; <REDACTED>@fishlegal.net) <<REDACTED>@fishlegal.net>; <REDACTED>

<<REDACTED>@fms.scot>

Subject: Fw: E - Sea lice in Loch Etive - <REDACTED>

Dear Charles

We are distressed to see the reported lice counts from Loch Etive to the 13th of September which highlight an average of nearly 13 adult female lice per fish:



From our perspective, we identify that this as a crisis. It is our responsibility to inform our constituents of this situation. We would like to know how this has been allowed to develop to this point, what efforts are being made to remedy this situation and how it is to be avoided in the future. While, due to previous experience, we have no confidence in Dawnfresh to be transparent about the situation, we do re tain some belief that the regulator will both act to ensure health and welfare of farm fish and share some up-to-date information with those wild fish interests who are affected by it.

We look forward to better news,

**Best Regards** 

<REDACTED>

From: <REDACTED> <<<u>REDACTED</u>>@argyllfisheriestrust.co.uk>

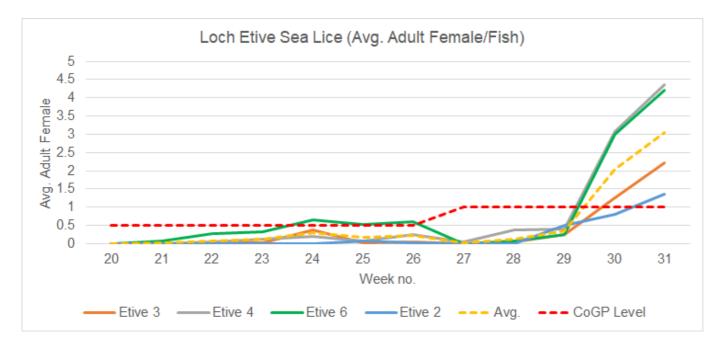
Sent: 27 August 2021 07:59

To: Charles.Allan@gov.scot < Charles.Allan@gov.scot > Subject: Re: E - Sea lice in Loch Etive - < REDACTED>

### **Dear Charles**

Our concern is very much related to the health of wild sea trout in Loch Etive. While our information is limited to anecdotal reports at this time, I have reports from at least two different sources of lice infested sea trout in Loch Etive. I have attached some images of sea trout sent to me.

Our information on reported sea lice numbers shows a significant rise in sea lice numbers on farmed rainbow trout in Loch Etive from week 29, particularly the Etive 4 and Etive 6 sites:



I also have a report of an accumulation of scum on the shoreline that smells of dead fish. You may be aware that there is a film making the rounds which has added to the concern of local residents and fishery interests <a href="https://www.youtube.com/watch?v="htt

### Fillet of Trout

This is filmed at a trout farm in Loch Etive, West of Scotland. It would appear that Dawnfresh, one of the UK's largest fish and seafood producers, is undergoing a huge mortality crisis. Dead and dying fish floating belly up and a thick, fatty scum drifting into the loch. They pride themselves on their welfare standards, judge for yourself.

www.youtube.com

The picture emerging from Loch Etive is not a good one for the operator or for wild fish health. I presume the lice numbers on the farm fish have been reported to FHI. I temper our concerns given the anecdotal nature of the information provided here, but I feel it is within our area of responsibility (Argyll District Salmon Fishery Board) to ask FHI what measures are being undertaken to remedy the situation. Please let me know if you feel this is not the case.

Yours Sincerely

<REDACTED>

From: Charles.Allan@gov.scot < Charles.Allan@gov.scot >

Sent: 26 August 2021 15:57

To: <REDACTED> <<u><REDACTED>@argyllfisheriestrust.co.uk></u>
Cc: <a href="MarineScotland@gov.scot">MarineScotland@gov.scot</a>>
Subject: FW: E - Sea lice in Loch Etive - <REDACTED>

Good afternoon <REDACTED>,

You submitted a query to the central enquiry unit this morning and it has been passed to me.

I am assuming that you're referring to farmed rainbow trout in Loch Etive, rather than wild sea trout.

I'm aware of a separate observation around health concerns of farmed fish in Loch Etive, but not regarding sea lice numbers – could you give me more detail, or is it better to discuss on the phone, if easier. Whilst I would note sea lice numbers as being higher than they have been historically, I wouldn't characterise them as being a crisis.

Many thanks and with best regards

### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

### www.gov.scot/marinescotland

**From:** <REDACTED> <<u>REDACTED</u>>@argyllfisheriestrust.co.uk>

Sent: 24 August 2021 07:18

To: Central Enquiry Unit < <a>CEU@gov.scot</a>>

Subject: Sea lice in Loch Etive

Hello. I am the <REDACTED> for Argyll Fisheries Trust. We are very concerned about the health of sea trout in Loch Etive which have been reported to us as having high numbers of sea lice. The ingormation i have on the sea lice numbers on farm fish suggest they are not coping well with the situation. Can you please let me know what actions are being undertaken to remedy this crisis situation.

Yours

<REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot>

**Sent:** 28 September 2021 11:39

To: <REDACTED> <<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>

Cc: <REDACTED>) (MARLAB) <REDACTED>@gov.scot>

Subject: FW: Sea Lice Wk 37 Loch Etive

Attachment – Sea lice notification – calendar week 37 - FS1067, FS1101, FS1112, FS1288 – published on Scotland's Aquaculture website

Hi All,

Please see the attached from <REDACTED>. Please can you process this notification?

Also copied to <REDACTED>, as its well above 6.

Thanks,

### <REDACTED>

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Sent:** 25 September 2021 17:44

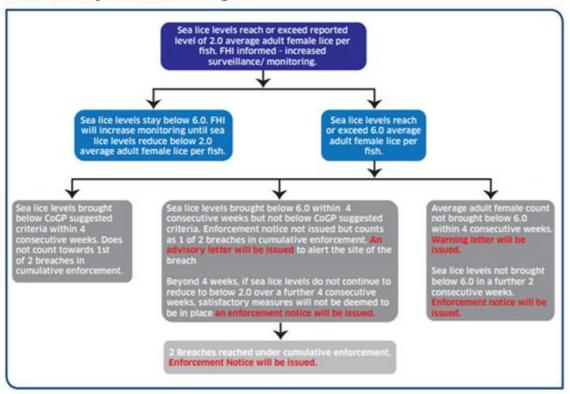
**To:** MS FishHealth < MS.FishHealth@gov.scot >

**Subject:** Sea Lice Wk 37 Loch Etive

Please find attached the sea-lice numbers for sea-lice for Loch Etive for Wk37. I am declaring second tier breaches (>6 AF's) for Etive 2, Etive 3, Etive 4 and Etive 6.

I am aware of the Marine Scotland Enforcement Regime and understand that this implies the timelines below for all DFF sites in Loch Etive.

### Sea Lice Policy - Enforcement Regime



				ROUTE 1	ROUTE 2			ROUTE 3			
Lice count Week	Site	reporting w.b.	reporting w.e.	Date of 2nd tier notification	Below 1 AF (Jul- Jan) within 4 weeks - Doesn't count towards enforcement	below 1 AF - 1	Not below 2 within another 4 weeks - 2 of 2 breaches - Enforcement Notice Issued	Not below 2 within 4 weeks following enforcement notice - STATUTORY ENFORCEMENT	Not brought below 6 AF within 4 weeks - warning letter issued	Not brought below 6 within a further 2 weeks - Enforcement Notice Issued	Not below 2 within 4 weeks following enforcement notice - STATUTORY ENFORCEMENT
36	Etive 4	06/09/2021	12/09/2021	17/09/2021	10/10/2021	10/10/2021	07/11/2021	05/12/2021	10/10/2021	24/10/2021	21/11/2021
36	Etive 6	06/09/2021	12/09/2021	17/09/2021	10/10/2021	10/10/2021	07/11/2021	05/12/2021	10/10/2021	24/10/2021	21/11/2021
37	Etive 2	13/09/2021	19/09/2021	24/09/2021	17/10/2021	17/10/2021	14/11/2021	12/12/2021	17/10/2021	31/10/2021	28/11/2021
37	Etive 3	13/09/2021	19/09/2021	24/09/2021	17/10/2021	17/10/2021	14/11/2021	12/12/2021	17/10/2021	31/10/2021	28/11/2021

### Mitigation

- We are aiming to treat ALL pens in Etive 2 this coming week (week 39) using the harvest/well-boat.
- We are aiming to harvest out 343 tonnes of fish from 4 pens before Friday next week using a hired in harvest boat from MOWI, thereby emptying pens S9 (Etive 6), T6 (Etive 4) and T4 (Etive 4), and starting to harvest P2 (Etive 3).

26-Sep	SUNDAY	S9	142000	30000	112,000			
27-Sep	MONDAY			112000	0	Empty S9		
28-Sep	TUESDAY	T6	150000	130000	20,000			
29-Sep	WEDNESDAY			66000	0	Empty T6 and take 46 ton from T4		
30-Sep	THURSDAY	T4	38000	51000	0	Empty T4 and take 13t from P2		
01-Oct	FRIDAY	P2	66000		0			

- If staff resources allow we will also perform additional tarpaulin bath treatments, based on pen by pen lice, but it may be the end of the week before tidal conditions allow this at Etive 4.
- I will have to firm up, and confirm with our Production Managers next week, but I believe that in the medium term (i.e. into October) we are aiming to fallow out Etive 6. We are also aiming to harvest most of the large fish at Etive 3 to make space for fish movements, as this is usually our lowest salinity site coming into Autumn/Winter, and also the easiest to bath treat as it has the lowest currents.

We will let you know further plans next week.

### Best Regards,



<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS FishHealth < MS. FishHealth@gov.scot>

Sent: 08 October 2021 16:11

**To:** <REDACTED>(MARLAB) <<REDACTED>@gov.scot> **Subject:** FW: Weeks 39 and 40 sea lice declarations

Attachment – Sea lice notification – calendar week 39 and 40 - FS1067, FS1101, FS1112, FS1288 – released as separate documents

From: <REDACTED><<REDACTED>@dawnfresh.co.uk>

Sent: 08 October 2021 16:06

**To:** MS FishHealth < MS.FishHealth@gov.scot > **Subject:** Weeks 39 and 40 sea lice declarations

Please find attached weeks 39 and 40 sea Lice declarations -Loch Etive.

We have performed medicinal treatments to successfully bring Etive 2 levels back below CoGP levels.

We have performed treatments at Etive 3 to bring levels back below 6 AF.

We have been performing treatments this week, and will continue into next week to reduce and control sea-lice numbers at Etive 4 and Etive 6.

We are also continuing with harvesting out larger fish to bring overall numbers of units down.

After the middle of next week, my understanding is that harvesting will cease for a while in order to concentrate on sea lice treatments.

Regards,

<REDACTED>,

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Sent:** 08 October 2021 17:21

To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Cc: <REDACTED> << REDACTED>@gov.scot>

**Subject:** RE: Weeks 39 and 40 sea lice declarations

Hi <REDACTED>

See highlighted answers below.

Best Regards,

<REDACTED>

<REDACTED>- Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED>@gov.scot <<REDACTED>@gov.scot>

**Sent:** 08 October 2021 17:05

To: <REDACTED><<REDACTED>@dawnfresh.co.uk>

Cc: <REDACTED>@gov.scot

**Subject:** FW: Weeks 39 and 40 sea lice declarations

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi <REDACTED>,

Thanks for updating us with the sea lice numbers. I just have a few questions regarding the mitigation measures used at the sites.

What medicinal treatments were used at Etive 2 and were they run over both week 39 and 40? All Azasure Treatments – and all week 39. What treatments are being used at Etive 3 and what weeks are they being carried out? Azasure - week 39. What treatments are being used at Etive 4 & 6? 7x Alphamax and 1x Azasure so far in current plan – weeks 40 and 41.

Kind regards, <REDACTED>

From: <REDACTED> <<<u>REDACTED</u>>@dawnfresh.co.uk>

Sent: 08 October 2021 16:06

**To:** MS FishHealth < MS.FishHealth@gov.scot > **Subject:** Weeks 39 and 40 sea lice declarations

Please find attached weeks 39 and 40 sea Lice declarations -Loch Etive.

We have performed medicinal treatments to successfully bring Etive 2 levels back below CoGP levels.

We have performed treatments at Etive 3 to bring levels back below 6 AF.

We have been performing treatments this week, and will continue into next week to reduce and control sea-lice numbers at Etive 4 and Etive 6.

We are also continuing with harvesting out larger fish to bring overall numbers of units down.

After the middle of next week, my understanding is that harvesting will cease for a while in order to concentrate on sea lice treatments.

Regards,





Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

### <REDACTED>

### <REDACTED>@dawnfresh.co.uk

From: <REDACTED><<REDACTED>@dawnfresh.co.uk>

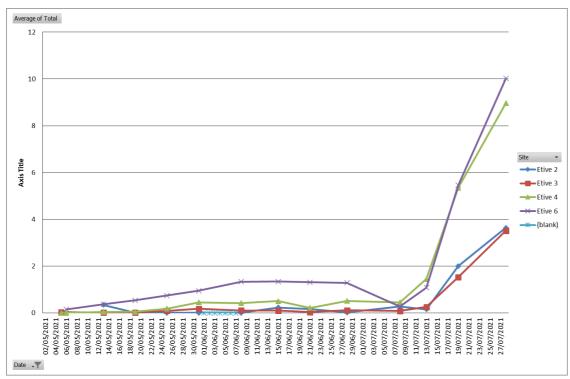
Sent: 30 July 2021 20:30

**To:** MS FishHealth < MS.FishHealth@gov.scot> **Subject:** DFF Week 30 sea lice declaration

Please find attached DFF's week 30 2021 sea lice declaration.

I am declaring a first tier breach this week for both Etive 4 and Etive 6.

We had a mechanical treatment vessel at our sites in weeks 26 and 27 which, although somewhat successful at removing lice, seems to have been particularly poor at capturing and retaining removed sea lice and louse eggs. We have therefore suffered a major re-settlement.



We have already started bath treating affected pens and have prioritised the worst cage for harvest on 2/8/21.

We are also negotiating the use of a 3<sup>rd</sup> party hydrolicer vessel from another Scottish aquaculture company which we hope to have in Loch Etive starting 10/8/21 for 6 days.

We will continue bath treating other pens with Azamethiphos and deltamethrin as appropriate in the meantime.

If you have any questions, please ring me to discuss.

Regards,

<REDACTED>



### <REDACTED>- Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS FishHealth < MS. FishHealth@gov.scot>

**Sent:** 09 August 2021 10:30

To: <REDACTED> <<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>

Subject: FW: Week 31 DFF Sea-lice figures

Attachment – Sea lice notification – calendar week 31- FS1067, FS1101, FS1112, FS1288 – published on Scotland's Aquaculture website

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)1312 442500 Mob:+44 <REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED</u>>@dawnfresh.co.uk>

Sent: 06 August 2021 20:11

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Week 31 DFF Sea-lice figures

Please find attached the DFF sea-lice declaration for week 31 2021.

I am declaring a 1<sup>st</sup> tier breach at Etive 3, Etive 4 and Etive 6 this week.

We have not been able to perform all of the bath treatments that we would have liked to this week due to a shortage of oxygen supply – BOC are delivering on a "waiting list" basis due to supply chain issues associated with the current "pingdemic".

We have now secured the hire of a hydrolicer from another fishfarming company and it will come into the loch to start treating for 6 days. We have prioritised oxygen availability for this intervention.

We aim to treat 16 pens at Etive 3, 4 and 6 over this period.

Please ring me if you have any more questions.

Regards,

<REDACTED>



# <REDACTED>, <REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Sent: 02 September 2021 08:55

To: <REDACTED>(MARLAB) <REDACTED>@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED>(MARLAB) < REDACTED>@gov.scot>; < REDACTED>(MARLAB)

<<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>(MARLAB)

<REDACTED>@gov.scot>; MS FishHealth < MS. FishHealth@gov.scot>

Subject: RE: Mortality declaration DFF

Sound like a good plan. I will discuss with <REDACTED>and <REDACTED>the possibility of visiting when they are in the area.

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)1312 442500 Mob:+44 <REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Sent: 02 September 2021 08:44

To: <REDACTED> (MARLAB) < <<u>REDACTED>@gov.scot</u>>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < REDACTED > (MARLAB)

<<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <

<<u>REDACTED</u>>@gov.scot>; MS FishHealth<<u>MS.FishHealth@gov.scot</u>>

Subject: RE: Mortality declaration DFF

Hi,

Has <REDACTED> indicated if DFF are to change any of their procedures to ensure this type of mortality doesn't occur in future? Or had they made a consideration of gill health prior to conducting the treatment and veterinary advice was that the fish were fine for the procedure.

Perhaps we should attend anyway to ensure they are on top of the mortality removal, storage and disposal situation and that they have operated in accordance with their BMP.

Cheers < REDACTED>

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Sent:** 02 September 2021 08:37

**To:** Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < REDACTED > (MARLABB) < REDACTED > (MARLABB) < REDACTED > (MARLABB) < REDACTED > (MARLABB) < REDACTED > (MARLABB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; MS FishHealth < MS.FishHealth@gov.scot> Subject: FW: Mortality declaration DFF

Hello,

Following on from my email of 31/8/21 I have an update from Loch Etive submitted today.

<REDACTED> has reported no further mortalities from Etive 6.

Two reports have come in from Etive 4 for weeks 33 and 34 of 1.2% and 2.3% attributed to Hydrolicer and environmental gill irritation and possibly phytoplankton.

<REDACTED> has summarised the whole Loch Etive situations from their point of view;

"This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don't suspect any new events. I am also including all of the histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn't seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event."

I suggest we keep an eye on the situation bearing in mind we have inspectors in the area w/b 20/9/21. If problems are still ongoing then we could pay them a visit. Are you content with this course of action?

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)1312 442500 Mob:+44 <REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth

Sent: 31 August 2021 08:08

**To:** Allan C (Charles) (MARLAB) < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>; < REDACTED > (MARLAB) < <a href="mailto:REDACTED">REDACTED > @gov.scot</a>; < REDACTED > (MARLAB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>

Cc: <REDACTED> <REDACTED>@gov.scot>; MS FishHealth <MS. FishHealth@gov.scot>; <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Subject: FW: Mortality declaration DFF

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from <REDACTED>. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

### Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 30 August 2021 19:45

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED >

The reports from my sampling across all 4 Loch Etive sites are coming in this evening. You can tie them in to the submission form as well.

I know the declaration under discussion was for Etive 6, but I will forward you the information for Etive 4 as well, as the hydrolicer went to that site as well and there will be around 3% for wk 34 (last week).

I am just checking that figures are complete before I do a formal submission.

There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>

# <REDACTED>

<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

**To:** <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk> **Cc:** <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

### Regards

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<u><REDACTED>@dawnfresh.co.uk</u>>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s.

Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,



# <REDACTED> **CREDACTED> Dawnfresh Farming.**



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

### <REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Sent:** 01 September 2021 21:18

**To:** MS FishHealth < MS. FishHealth@gov.scot>

**Subject:** Mortality Etive 4.

### Attachments:

Etive 4 mortality 130821 (1.28%)

Etive 4 mortality 130821 (3.37%)

Etive 6 histology report 200821

Etive 3 histology report 200821

Etive 2 histology report 200821

Laboratory submission form 200821

Etive 4 histology report 200821

I am writing to inform you of excess mortality figures for Etive 4 now confirmed for week 34.

It looks as if some of the recent figures did indeed fall into week 33 as well so I'll include them here too.

This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don't suspect any new events

I am also including all of the histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point.

Although it doesn't seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event.

Please get back to me if you want to discuss further.

Best Regards,

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 19 August 2021 19:13

To: MS FishHealth < MS. FishHealth@gov.scot>

Subject: DFF Week 32 mortality

### Attachments:

Etive 6 mortality notification 110821 (1.15) Etive 4 mortality 090821 (1.38)

Please find notification of mortalities at sites Etive 4 and Etive 6 for week 32.

These are mortalities following the hydrolicer treatments at these 2 sites last week.

Due to diver availability/dive time, we are still removing morts and we are already just over 1% for this week (wk 33) at Etive 6, and I suspect that the same will be true of Etive 4.

I am visiting all sites in Loch Etive tomorrow to check that there are no signs of primary disease, and to take samples if appropriate.

Regards,

<REDACTED>

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston

### Lanarkshire G71 6LS

#### <REDACTED>

Richard. Hopewell@dawnfresh.co.uk

From: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

**Sent:** 02 September 2021 10:32

To: MS FishHealth < MS. FishHealth@gov.scot>; Aquaculture Health Policy < aquaculturehealthpolicy@gov.scot>

Cc: <REDACTED> (MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

<REDACTED><REDACTED>@gov.scot>;<REDACTED>@gov.scot>;<REDACTED>@gov.scot>;<REDACTED>

<REDACTED>@gov.scot>; <REDACTED><REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@g

< REDACTED > @ gov.scot >; < REDACTED > @ gov.

< REDACTED > @ gov.scot >; < REDACTED > @ gov.

< REDACTED > @ gov.scot >; < REDACTED > @ gov.

<<REDACTED>@gov.scot>

**Subject:** Mortality Event Report MRT02336-MRT02337

Attachment - Mortality event reports MRT02336 and MRT02337

Hi All

Please find attached mortality event report.

If you have any gueries about this report please do not hesitate to get in touch.

## Regards

**Duty Inspector** 

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)131 244 2500 Fax: +44 (0)1224 295620 e: MS.Fishhealth@gov.scot

w: http://www.gov.scot/Topics/marine

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 07 August 2021 20:12

**To:** MS FishHealth < MS.FishHealth@gov.scot> **Subject:** Dawnfresh Mortality level breach

Attachments:

Etive 2 mortality 060821 (2.83)

Etive 3 mortality 040821 (1.32)

I am writing to report the following mortality level breaches at Etive 2 and Etive 3.

There's not much room on the forms for details so I'll add a few more in here.

We've seen quite stagnant conditions at the landward end of the loch with quite low background D.O.'s (e.g. 6mg/l during the daytime.... So probably lower at night). However, it is odd that across both sites it is only the smallest fish which are affected, and we have fish from 3 different sources (Rocks Lodge, Kinnaird and Selcoth), so the common factor does appear to be size.

I visited both sites this morning and there are no abnormal behaviours obvious, in fact, if you didn't know about the mortality levels, you would say everything looked normal.

Etive 2 was graded recently, plus there are some new recent inputs, so potentially this could be low oxygen levels + handling. We will reassess during morting next week to check that numbers are dropping.

At Etive 3, we have a single pen of smaller fish (340g – all other fish on site 2 to 3kg) where a pocket of old mortalities were found away from the deading basket, but even when these were all cleared out, we then had around 300 fresh new morts the next day.

The pen looked perfectly normal this morning with no moribunds available for sampling.

I took out and anaesthetised around 20 random fish and all that I could see were what looked like digestion issues, with the guts containing yellow, very liquid contents, with possibly a hint of reddening at the vents in some fish?

Water temperature is 14 degrees. Salinity still around 25ppt.

I have never seen RTGE in seawater, but perhaps this needs to be ruled out?

We would need to rule out ERM, but the fish are vaccinated against it and there were no typical signs of systemic infection.

I did a plankton trawl and total cells/litre were low — maybe 1,000 cells/litre. They were mostly the usual mix of diatoms, but there were one or two occasional larger *Chaetocerus* - probably *decipiens* or similar (but only around 2 chain fragments per litre). There were also a few Gonyaulax and protoperidinium spp. around, *possibly* a single small *Alexandrium spp.* and some simple flagellates which I was unable to guess at — in all cases, at 2 to 5 cells per litre? So natural environmental toxin ingestion can't be 100% ruled out.

It could just be overnight D.O. drops coinciding with fish still digesting meals during the hours of darkness. I will discuss cutting back on feeding with the business as an interim measure on Monday.

I'm happy to discuss further, and we will be monitoring next week to see if mortality levels drop or not.

Best Regards,

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



### **Dawnfresh Farming**

Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

### <REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 09 August 2021 15:54

To: MS FishHealth < MS. FishHealth@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>

**Subject:** RE: Dawnfresh Mortality level breach

Hi < REDACTED >

Ah ok – apologies – I tend to think primarily in %'s

Actual fish numbers below.

Etive 3 – 3,774 (week 31),

Etive 2 – 9,188 (week 31),

We've had divers in this morning in there still seem to be fresh dead coming out so I'm going back to the site tomorrow.

I'll let you know how I get on.

Thanks,

<REDACTED>

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 09 August 2021 14:04

**To:** <REDACTED> <REDACTED> @dawnfresh.co.uk>; MS.FishHealth@gov.scot

Cc: Charles.Allan@gov.scot

**Subject:** RE: Dawnfresh Mortality level breach

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you <REDACTED>,

Are you able to provide a fish number corresponding to the weekly mortality percentages?

### <REDACTED>

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB119DB

Tel: <REDACTED>

S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 09 August 2021 13:46

**To:** MS FishHealth < MS.FishHealth@gov.scot >

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >

**Subject:** RE: Dawnfresh Mortality level breach

Hi <REDACTED>,

Mort levels for last week (Wk31) were 2.83% for Etive 2 and 1.32% for Etive 3 – though at Etive 3, this is almost all from Pen 8 (2.93% for this pen for last week).

We've got divers back in today to go back to all the elevated pens to see if there's anything new/fresh coming out.

I'm hoping to get at least a verbal indication on the histo on Thursday (but possibly Friday) so I'll let you know as soon as I hear anything. I'll update you on Wk32 morts as well whether they are still above reporting levels or not.

All the best,

<REDACTED>

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 09 August 2021 11:43

**To:** <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk> **Cc:** MS.FishHealth@gov.scot; Charles.Allan@gov.scot

**Subject:** RE: Dawnfresh Mortality level breach

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello < REDACTED>,

Thank you for providing this information.

RTGE is not one I recall in sea water either.

Once we have a better indication if there are ongoing elevated mortalities at Etive 3 and the results for your histology samples we will consider if conducting a site visit is appropriate.

Please can you provide a figure for the mortality numbers for the week reported for both Etive 2 and Etive 3.

Best regards

<REDACTED>

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB119DB

Tel: <REDACTED>

S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Sent:** 07 August 2021 20:12

**To:** MS FishHealth < MS.FishHealth@gov.scot > **Subject:** Dawnfresh Mortality level breach

I am writing to report the following mortality level breaches at Etive 2 and Etive 3.

There's not much room on the forms for details so I'll add a few more in here.

We've seen quite stagnant conditions at the landward end of the loch with quite low background D.O.'s (e.g. 6mg/l during the daytime.... So probably lower at night). However, it is odd that across both sites it is only the smallest fish which are affected, and we have fish from 3 different sources (Rocks Lodge, Kinnaird and Selcoth), so the common factor does appear to be size.

I visited both sites this morning and there are no abnormal behaviours obvious, in fact, if you didn't know about the mortality levels, you would say everything looked normal.

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At Etive 3, we have a single pen of smaller fish (340g – all other fish on site 2 to 3kg) where a pocket of old mortalities were found away from the deading basket, but even when these were all cleared out, we then had around 300 fresh new morts the next day.

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Water temperature is 14 degrees. Salinity still around 25ppt.

I have never seen RTGE in seawater, but perhaps this needs to be ruled out?

We would need to rule out ERM, but the fish are vaccinated against it and there were no typical signs of systemic infection.

I did a plankton trawl and total cells/litre were low — maybe 1,000 cells/litre. They were mostly the usual mix of diatoms, but there were one or two occasional larger *Chaetocerus* - probably *decipiens* or similar (but only around 2 chain fragments per litre). There were also a few Gonyaulax and protoperidinium spp. around, *possibly* a single small *Alexandrium spp.* and some simple flagellates which I was unable to guess at — in all cases, at 2 to 5 cells per litre? So natural environmental toxin ingestion can't be 100% ruled out.

It could just be overnight D.O. drops coinciding with fish still digesting meals during the hours of darkness. I will discuss cutting back on feeding with the business as an interim measure on Monday.

I'm happy to discuss further, and we will be monitoring next week to see if mortality levels drop or not.

Best Regards, < REDACTED >

#### <REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> (MARLAB)
Sent: 26 August 2021 16:51

To: MS FishHealth < MS. FishHealth@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

Probably just Lorna King, <REDACTED> and <REDACTED> - we may want to include Greener comms because of potential press interest (not received yet though) and copy Rob and Ops team. Lorna can always distribute further at her end.

Perhaps just worth holding off and confirming with Charles. He may wish to put something himself. You could always ask him if he wants you to take this forward or not

Happy to help out with any drafting / sense checking if you need my input.

**From:** MS FishHealth < MS. FishHealth@gov.scot >

**Sent:** 26 August 2021 16:45

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

Thanks <REDACTED>.

Who in policy should receive the information?

Cheers

<REDACTED>

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Sent: 26 August 2021 15:00

To: MS FishHealth <MS.FishHealth@gov.scot>; <REDACTED> (MARLAB) <<REDACTED>@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; Donald A (Anna) (MARLAB) < Anna. M. Donald@gov.scot>; Duguid S (Sonia) (MARLAB)

<<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>

<<u><REDACTED>@gov.scot</u>>; <REDACTED> <<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED>

<<u><REDACTED>@gov.scot</u>>;<REDACTED><<u><REDACTED>@gov.scot</u>>;<REDACTED> (MARLAB)

(MARLAB) << REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@

<<REDACTED>@gov.scot>;<REDACTED><<REDACTED>@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

Thanks < REDACTED>

Once we have heard back from the site then we can take a view.

It would be sensible to keep policy in the loop on this once we have a better understanding of what is going on. Let me know if you are struggling for time to do this.

When / if we do go back to <REDACTED> we need to emphasise that welfare in not within our regulatory remit but we have / are investigating from a fish health perspective and have communicated with APHA. Best to agree any response through the Ops Team copying policy as required I would suggest.

# Thanks, <REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot >

Sent: 26 August 2021 14:41

To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>; MS FishHealth <MS.FishHealth@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

 $< \texttt{REDACTED} > (\texttt{MARLAB}) < \texttt{REDACTED} > \underbrace{@\texttt{gov.scot}} >; < \texttt{REDACTED} > \underbrace{(\texttt{MARLAB}) < \texttt{REDACTED}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLAB}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLAB}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLAB}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLABB}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLABB}} > \underbrace{(\texttt{MARLAB}) < \texttt{MARLABB}} > \underbrace{(\texttt{MARLABB}) < \texttt{MARLABBB}} > \underbrace{(\texttt{MARLABB}) < \texttt{MARLABBB}} > \underbrace{(\texttt{MARLABBB}) < \texttt{MARLABBB}} > \underbrace{(\texttt{MARLABBB}) < \texttt{MARLABBB}} > \underbrace{(\texttt{MARLABBB}) < \texttt{MARLABBB}} > \underbrace{(\texttt{MARLABBB}) < \texttt{MARLABBB}} >$ 

<REDACTED> (MARLAB) < REDACTED>@gov.scot>; <

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED>

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED> @gov.scot>; <REDACTED> (MARLAB)

<<u><REDACTED>@gov.scot</u>>;<REDACTED>@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

#### Hi <REDACTED>

Very likely (it was Etive 4 and 6), I spoke to APHA, they were not concerned with the harvest procedures but were questioning the number of morts and what the underlying cause was, I am waiting on a call back from the manager. I don't think APHA were thinking a site visit was required but I will report back to them once I have spoken to the manager and have a better understanding of the situation.

Cheers

## <REDACTED>

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Sent:** 26 August 2021 14:27

**To:** MS FishHealth < MS. FishHealth@gov.scot >

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB)

<<u><REDACTED</u>>@gov.scot>;<REDACTED>(MARLAB)<<u><REDACTED</u>>@gov.scot>;<REDACTED>@gov.scot>;<REDACTED>

```
<REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> @gov.scot>; < REDACTED> @gov.scot> < REDACTED> < R
```

Hi,

This might be related to the mortality report for Etive 6 where there might have been an issue with diver availability. Has there been an update since the biologist was visiting the site on the 20<sup>th</sup>?

Cheers < REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot >

Sent: 26 August 2021 12:01

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < (MARLAB) < (MARLAB) < (MARLAB) < (MARLAB) < (MAR

Hi all,

We have just received the email complaint below, APHA has been copied in. Drone footage over a harvest and what looks like morts that have been disturbed by crowding the cage.

From: <REDACTED> <<REDACTED>@googlemail.com>

Sent: 26 August 2021 11:35

**To:** MS FishHealth < MS. FishHealth@gov.scot >; enquiries@apha.gov.uk; APHA. Scotland@apha.gsi.gov.uk; enquiries@scottishspca.org;

executive@rspca.org.uk; NatureScot.Species.Crime@nature.scot

Subject: Fish welfare - Loch Etive.

Dear sirs,

Please treat this as a formal complaint.

We have witnessed on the 24th and 25th of August 2021, distressing scenes of poor welfare at Loch Etive trout farm, operated by Dawnfresh Seafoods Ltd.

The attached video shows scenes of incomplete slaughter, where fish are still alive and struggling in bins of ice and blood. Also there are dying fish swimming upside down in amongst many mortalities.

# https://youtu.be/\_bgx7KRg82I

The mortalities have clearly been there some considerable time, shown by the state of decomposition.

We are appalled by this situation which has been going on for several days and is set to continue. Please would you investigate this with the utmost urgency.

The fish farm is located in Loch Etive, Argyll, Grid reference NM 98333 34189, What3Words ///soup.shops.preparing

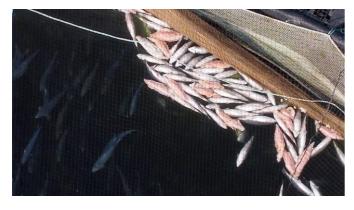
Please would you let us know what comes of your enquiries.

Best regards

<REDACTED>

<REDACTED>







From: <REDACTED> (MARLAB)
Sent: 26 August 2021 16:26

**To:** Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<<REDACTED>@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

## Thanks Charles

Yes – clearly not pleasant and a mortality problem to an extent – either volume, failure to remove, or both.

Just to flag, although you are probably already aware, <REDACTED> has links with <REDACTED> and perhaps <REDACTED> also, although trout has never been high on their agenda there is the possibility that media queries ensue.

## <REDACTED>

From: Allan C (Charles) (MARLAB) < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>>

Sent: 26 August 2021 16:16

To: <REDACTED> <<u><REDACTED>@gov.scot</u>>; <REDACTED>@gov.scot>

**Subject:** RE: Fish welfare - Loch Etive.

I reviewed the footage, not particularly pleaseant.

Not sure if it is interconnected, <REDACTED> submitted a query regarding sea lice on sea trout in Loch Etive to CEU this morning – I've asked him for some clarification before I circulate more widely.

#### Thanks

#### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

www.gov.scot/marinescotland

From: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Sent: 26 August 2021 15:00

To: MS FishHealth < MS. FishHealth@gov.scot >; < REDACTED > (MARLAB) < < REDACTED > @gov.scot >

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB) <<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB) <<u>REDACTED</u>>@gov.scot>;

<REDACTED><<u><REDACTED>@gov.scot</u>>;<REDACTED><<u><REDACTED>@gov.scot</u>>;<REDACTED></REDACTED>

<<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>(MARLAB)

<<u><REDACTED>@gov.scot</u>>;<REDACTED><<u><REDACTED>@gov.scot</u>>

**Subject:** RE: Fish welfare - Loch Etive.

Thanks <REDACTED>

Once we have heard back from the site then we can take a view.

It would be sensible to keep policy in the loop on this once we have a better understanding of what is going on. Let me know if you are struggling for time to do this.

When / if we do go back to <REDACTED> we need to emphasise that welfare in not within our regulatory remit but we have / are investigating from a fish health perspective and have communicated with APHA. Best to agree any response through the Ops Team copying policy as required I would suggest.

Thanks, <REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot >

Sent: 26 August 2021 14:41

To: <REDACTED> (MARLAB) < <a href="mailto:REDACTED@gov.scot">REDACTED@gov.scot</a>>; MS FishHealth < <a href="mailto:MS.FishHealth@gov.scot">MS.FishHealth@gov.scot</a>>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<REDACTED> (MARLAB) < < REDACTED>@gov.scot >; < REDACT

(MARLAB)<<u><REDACTED>@gov.scot</u>>;<REDACTED><<u><REDACTED>@gov.scot</u>>;<REDACTED><<u>@gov.scot</u>>;<REDACTED>

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <REDACTED> <u>@gov.scot</u>>; <REDACTED> <u>@gov.scot</u>>; <REDACTED>

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <R

<<u>REDACTED</u>>@gov.scot>;<REDACTED>@gov.scot>;<REDACTED>@gov.scot>

Subject: RE: Fish welfare - Loch Etive.

Hi <REDACTED>

Very likely (it was Etive 4 and 6), I spoke to APHA, they were not concerned with the harvest procedures but were questioning the number of morts and what the underlying cause was, I am waiting on a call back from the manager. I don't think APHA were thinking a site visit was required but I will report back to them once I have spoken to the manager and have a better understanding of the situation.

#### Cheers

#### <REDACTED>

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Sent: 26 August 2021 14:27

To: MS FishHealth < MS. FishHealth@gov.scot >

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < CREDACTED > (MARLAB) < (CREDACTED > (MARL

Hi,

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Sent: 26 August 2021 12:01

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB)

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB)

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; <REDACTED>@gov.scot>; <REDACTED>@gov.sco

<<u><REDACTED>@gov.scot</u>>; <REDACTED> <u><<REDACTED>@gov.scot</u>>; <REDACTED> <u>@gov.scot</u>>; <REDACTED> <u><<REDACTED>@gov.scot</u>>; <REDACTED> <u>@gov.scot</u>>; <REDACTED> <u>@gov.scot</u>>;

Subject: FW: Fish welfare - Loch Etive.

Hi all,

We have just received the email complaint below, APHA has been copied in. Drone footage over a harvest and what looks like morts that have been disturbed by crowding the cage.

<REDACTED>

From: <REDACTED> << REDACTED>@googlemail.com>

Sent: 26 August 2021 11:35

To: MS FishHealth < MS. FishHealth@gov.scot >; enquiries@apha.gov.uk; APHA.Scotland@apha.gsi.gov.uk; enquiries@scottishspca.org;

executive@rspca.org.uk; NatureScot.Species.Crime@nature.scot

Subject: Fish welfare - Loch Etive.

Dear sirs,

Please treat this as a formal complaint.

We have witnessed on the 24th and 25th of August 2021, distressing scenes of poor welfare at Loch Etive trout farm, operated by Dawnfresh Seafoods Ltd.

The attached video shows scenes of incomplete slaughter, where fish are still alive and struggling in bins of ice and blood. Also there are dying fish swimming upside down in amongst many mortalities.

https://youtu.be/\_bgx7KRg82I

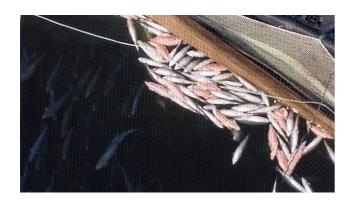
The mortalities have clearly been there some considerable time, shown by the state of decomposition.

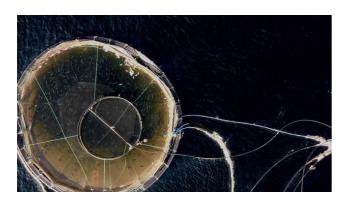
We are appalled by this situation which has been going on for several days and is set to continue. Please would you investigate this with the utmost urgency.

The fish farm is located in Loch Etive, Argyll, Grid reference NM 98333 34189, What3Words ///soup.shops.preparing

Please would you let us know what comes of your enquiries.

Best regards









From: <REDACTED> (MARLAB)
Sent: 26 August 2021 16:38

To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Subject: RE: OFFICIAL-SENSITIVE: FAO Duty Inspector - Welfare at Loch Etive

No worries – you can update with any further mort data if required and if asked can confirm the vet stuff is on the way.

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Sent: 26 August 2021 16:35

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Subject: RE: OFFICIAL-SENSITIVE: FAO Duty Inspector - Welfare at Loch Etive

Thanks,

Forgot to ask! I need to get the mort data so will make enquiries.

Cheers

## <REDACTED>

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Sent: 26 August 2021 16:34

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Subject:** FW: OFFICIAL-SENSITIVE: FAO Duty Inspector - Welfare at Loch Etive

Great – good work on this <REDACTED>.

Was there any feedback on the vet visit that <REDACTED> mentioned.

Cheers

**From:** MS FishHealth < MS.FishHealth@gov.scot >

Sent: 26 August 2021 16:30

To: SM-APHA-ScotlandDutyVet < <a href="mailto:ScotlandDutyVet@apha.gov.uk">ScotlandDutyVet@apha.gov.uk</a>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED> @gov.scot>; < REDACTED> (MARLAB)

<<u><REDACTED</u>>@gov.scot\_>; <REDACTED> (MARLAB) <REDACTED> (MARLAB) <REDACTED> (MARLAB) <REDACTED> (MARLAB)

<REDACTED>@gov.scot>

**Subject:** RE: OFFICIAL-SENSITIVE: FAO Duty Inspector - Welfare at Loch Etive

Hi <REDACTED>,

I have managed to speak to the <REDACTED> and reviewed the information we have for the site.

The site that the footage is from is Etive 6 (FS1288) operated by Dawnfresh Farming Ltd, the harvesting procedure shown uses the Baader S17 (<a href="Harvesting-BAADERFood Processing Machinery">Harvesting-BAADERFood Processing Machinery</a>), the process was audited and approved by RSPCA as part of the RSPCA assured standard for trout.

The site reported to the FHI that a mortality event had occurred on the w/b 11/8/2021 to the 17/8/2021, the event was 1.15% (5190) RTR @ 1.7kg. The cause of this was down to post treatment mortalities following the use of a hydrolicer.

The site uses a dead baskets to remove the mortalities and divers as well. Unfortunately due to staff and diver availability there had been a build-up of morts in some pens that are still being removed. They are trying to remove all the morts however there was a similar issue at another site on the Loch (Etive 4) so this is proving challenging given resource however they are continuing to remove them as fast as possible.

There are no other issues with the stock on site. I have requested that the manager sends through the last four weeks of mortality data and can forward that to you should you need it.

If you need further assistance please get in touch.

Regards

# <REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: SM-APHA-ScotlandDutyVet < <a href="mailto:scotlandDutyVet@apha.gov.uk">scotlandDutyVet@apha.gov.uk</a>

Sent: 26 August 2021 13:28

**To:** MS FishHealth < MS. FishHealth@gov.scot >

Subject: OFFICIAL-SENSITIVE: FAO Duty Inspector - Welfare at Loch Etive

Importance: High

Good afternoon,

Please can you contact me to discuss this case?

My number is <REDACTED>.

Thank you for your help.

Kind regards,

<REDACTED>

<REDACTED> MRCVS
Senior Veterinary Inspector

**APHA Scotland Field Services** 

# **Animal and Plant Health Agency (APHA)**

Telephone: <REDACTED> | Mobile: <REDACTED> | Email: <a href="mailto:<a href="m

Website: www.gov.uk/apha | Twitter: @APHAgovuk | Facebook: aphagov

Address: APHA Inverurie, Thainstone Court, Inverurie, Aberdeenshire, AB51 5YA



From: <REDACTED> <<u><REDACTED</u>>@googlemail.com>

Sent: 26 August 2021 11:35

To: MS.fishhealth@gov.scot; SM-APHA-Enquiries APHA < enquiries@apha.gov.uk >; SM-APHA-APHA Scotland (APHA) < APHA.Scotland@apha.gov.uk >;

enquiries@scottishspca.org; executive@rspca.org.uk; NatureScot.Species.Crime@nature.scot

**Subject:** Fish welfare - Loch Etive.

Dear sirs,

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We have witnessed on the 24th and 25th of August 2021, distressing scenes of poor welfare at Loch Etive trout farm, operated by Dawnfresh Seafoods Ltd.

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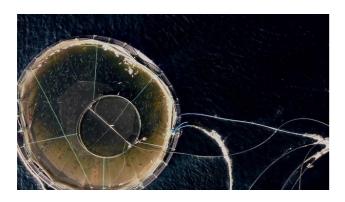
The mortalities have clearly been there some considerable time, shown by the state of decomposition.

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The fish farm is located in Loch Etive, Argyll, Grid reference NM 98333 34189, What3Words ///soup.shops.preparing

Please would you let us know what comes of your enquiries.

Best regards









**From:** MS FishHealth < MS. FishHealth@gov.scot>

Sent: 26 August 2021 14:41

To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>; MS FishHealth <MS.FishHealth@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <RE

< REDACTED> @ gov.scot>; < REDACTED> @ gov.s

< REDACTED > @ gov.scot>; < REDACTED > ( < RED

<<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

<<REDACTED>@gov.scot>; <REDACTED>) (MARLAB) <<REDACTED>@gov.scot>; <REDACTED>) @gov.scot>; <REDACTED>) (MARLAB)

<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>
Subject: RE: Fish welfare - Loch Etive.

#### Hi <REDACTED>

Very likely (it was Etive 4 and 6), I spoke to APHA, they were not concerned with the harvest procedures but were questioning the number of morts and what the underlying cause was, I am waiting on a call back from the manager. I don't think APHA were thinking a site visit was required but I will report back to them once I have spoken to the manager and have a better understanding of the situation.

Cheers

<REDACTED>

From: <REDACTED> (MARLAB) < <<u>REDACTED>@gov.scot</u>>

Sent: 26 August 2021 14:27

**To:** MS FishHealth < MS.FishHealth@gov.scot >

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < (MAR

Hi,

This might be related to the mortality report for Etive 6 where there might have been an issue with diver availability. Has there been an update since the biologist was visiting the site on the 20<sup>th</sup>?

Cheers

#### <REDACTED>

**From:** MS FishHealth < MS. FishHealth@gov.scot >

Sent: 26 August 2021 12:01

To: <REDACTED> (MARLAB) <<REDACTED>@gov.scot>; <REDACTED> (MARLAB) <<REDACTED>@gov.scot>; <REDACTED> (MARLAB)

<<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <

<<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>

<<u>REDACTED</u>>@gov.scot>; <REDACTED>) (MARLAB) <<u>REDACTED</u>>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>

<<REDACTED>@gov.scot>

Subject: FW: Fish welfare - Loch Etive.

Hi all,

We have just received the email complaint below, APHA has been copied in. Drone footage over a harvest and what looks like morts that have been disturbed by crowding the cage.

## <REDACTED>

From: <REDACTED> <<<u>REDACTED>@googlemail.com</u>>

Sent: 26 August 2021 11:35

To: MS FishHealth < MS. FishHealth@gov.scot>; enquiries@apha.gov.uk; APHA. Scotland@apha.gsi.gov.uk; enquiries@scottishspca.org;

executive@rspca.org.uk; NatureScot.Species.Crime@nature.scot

**Subject:** Fish welfare - Loch Etive.

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# https://youtu.be/\_bgx7KRg82I

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We are appalled by this situation which has been going on for several days and is set to continue. Please would you investigate this with the utmost urgency.

The fish farm is located in Loch Etive, Argyll, Grid reference NM 98333 34189, What3Words ///soup.shops.preparing

Please would you let us know what comes of your enquiries.

Best regards





From: <REDACTED>) (MARLAB) <REDACTED>@gov.scot>

Sent: 27 August 2021 15:51

To: MS FishHealth < MS. FishHealth@gov.scot>; Aquaculture Health Policy < aquaculturehealthpolicy@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED>(MARLAB) < REDACTED>@gov.scot>; < REDACTED>(MARLAB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <RE

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>)

<REDACTED>@gov.scot>; <REDACTED>@gov.scot>;<REDACTED>@gov.scot>;

< REDACTED > < REDACTED > @gov.scot >; < R

<REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED>@gov.scot>; < REDACTED>@gov.scot>;

< REDACTED > < REDACTED > (MARLAB) < REDACTED > (MARLABB) < REDACTED > (MARLABBD) < REDACTED >

<<REDACTED>@gov.scot>

**Subject:** Mortality Event Report MRT02314-MRT02315

Attachment - Mortality event report MRT02315 (N.B. MRT02314 is out of the scope of the request)

Hi All

Please find attached mortality event report.

If you have any queries about this report please do not hesitate to get in touch.

Regards

# **Duty Inspector**

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)131 244 2500 Fax: +44 (0)1224 295620 e: MS.Fishhealth@gov.scot

w: http://www.gov.scot/Topics/marine

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Sent:** 23 September 2021 14:02

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Subject: RE: Enforcement Regime in relation to sea lice data reporting

Thanks < REDACTED >,

Yes, this is what I've been explaining to everyone in the company, and what myself and our vet have been working from.

Thanks for your help,

Best Regards,



<REDACTED>,

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED>@gov.scot <<REDACTED>@gov.scot>

**Sent:** 23 September 2021 14:00

To: <REDACTED> << REDACTED>@dawnfresh.co.uk>

**Subject:** Enforcement Regime in relation to sea lice data reporting

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

71+The+Regulation+of+Sea+Lice+in+Scotland+2021.pdf (www.gov.scot)

Hi <REDACTED>,

Please find a link above to a Topic Sheet which contains a flow diagram for decisions in relation to the enforcement regime for sea lice levels and the data reporting.

Regards <REDACTED>

#### <REDACTED>

Technical Manager - Fish Health Inspectorate

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375, Victoria Road | Aberdeen AB11 9DB

Tel: +44 < REDACTED>

S/B: +44 (0)131 244 2500

Mob:+44 < REDACTED>

FAX: +44 (0)131 244 0944

e:\_<REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth < MS. FishHealth@gov.scot>

Sent: 31 August 2021 08:08

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>

Cc: <REDACTED> <REDACTED>@gov.scot>; MS FishHealth <MS.FishHealth@gov.scot>; <REDACTED>) (MARLAB) <REDACTED>@gov.scot>

Subject: FW: Mortality declaration DFF

# Attachments:

Laboratory submission form 270821 Loch Etive mortality summary Etive 4 histology report 200821 laboratory submission form 200821

# Etive 6 histology report 200821

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from <REDACTED>. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:+<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 30 August 2021 19:45

**To:** MS FishHealth < MS.FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED>,

The reports from my sampling across all 4 Loch Etive sites are coming in this evening.

You can tie them in to the submission form as well.

I know the declaration under discussion was for Etive 6, but I will forward you the information for Etive 4 as well, as the hydrolicer went to that site as well and there will be around 3% for wk 34 (last week).

I am just checking that figures are complete before I do a formal submission.

There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>



<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming

Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

To: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>
Cc: <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

Regards

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s. Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,



<REDACTED>,

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

## <REDACTED>@dawnfresh.co.uk

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Sent: 31 August 2021 09:46

To: MS FishHealth <MS.FishHealth@gov.scot>; <REDACTED> (MARLAB) <REDACTED>@gov.scot>; Allan C (Charles) (MARLAB) <Charles.Allan@gov.scot>;

<REDACTED> (MARLAB) < REDACTED>@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>

Cc: <REDACTED> <REDACTED>@gov.scot>; <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Subject: RE: Mortality declaration DFF

Hi,

Do we know if any of the cages that were treated used the Skamik system that was referred to in some docs but not <REDACTED> email? I don't know if the system has been improved but it caused issues when it was first used as a means to remove sea lice, and the skin pathology report (where available) suggests damage to the epithelium and 'complete loss of superficial skin layers' in a couple of fish. Have they resolved the mort removal issues?

Cheers < REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot >

Sent: 31 August 2021 08:31

**To:** <REDACTED> (MARLAB) < <a href="mailto:charles"><u>charles.Allan@gov.scot</u>>; Allan C (Charles) (MARLAB) < <a href="mailto:charles"><u>charles.Allan@gov.scot</u>>; <a href="mailto:charles">charles.Allan@gov.scot</a>; <a href="mailto:charles">charles</a>; <a href="mailto:char

**Cc:** <REDACTED> <<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>

**Subject:** RE: Mortality declaration DFF

Provisionally we have <REDACTED> heading down to Machrihanish on Monday and <REDACTED> on Thursday.

# <REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Sent: 31 August 2021 08:20

To: MS FishHealth < MS. FishHealth@gov.scot>; Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < REDACTED>@gov.scot>;

<REDACTED> (MARLAB) < REDACTED> @gov.scot >
Cc: < REDACTED> @gov.scot > (MARLAB) < REDACTED> @gov.scot >

Subject: RE: Mortality declaration DFF

#### Hi <REDACTED>

If a visit is required sooner could it be tied in with one of the export trips to Machrihanish next week? There and back in a day is too long so if someone was planning to stay overnight part way back they could head towards Oban and visit Etive the following day.

#### Cheers

## <REDACTED>

**From:** MS FishHealth < MS.FishHealth@gov.scot >

Sent: 31 August 2021 08:08

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<<u><REDACTED>@gov.scot</u>>; <REDACTED>@gov.scot> (MARLAB) <<u><REDACTED>@gov.scot</u>> (Subject: FW: Mortality declaration DFF)

Hello Charles,

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Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +<REDACTED> S/B: +44 (0)1312 442500 Mob:+<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 30 August 2021 19:45

**To:** MS FishHealth < MS.FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED>,

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There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>



<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming

Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

To: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>
Cc: <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

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Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s. Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,



<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

# <REDACTED>@dawnfresh.co.uk

From: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Sent: 02 September 2021 08:55

To: <REDACTED>(MARLAB) <REDACTED>@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED>(MARLAB) < REDACTED>@gov.scot>; < REDACTED>(MARLAB)

<REDACTED>@gov.scot>; <REDACTED>(MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>(MARLAB)

<REDACTED>@gov.scot>; MS FishHealth < MS. FishHealth@gov.scot>

Subject: RE: Mortality declaration DFF

Sound like a good plan. I will discuss with <REDACTED> and <REDACTED> the possibility of visiting when they are in the area.

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED>S/B: +44 (0)1312 442500

Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> (MARLAB) <<<u>REDACTED>@gov.scot</u>>

**Sent:** 02 September 2021 08:44

To: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

 $\textbf{Cc:} \ Allan \ C \ (Charles) \ (MARLAB) < \underline{Charles.Allan@gov.scot} >; < REDACTED > (MARLAB) < \underline{CREDACTED} > (MARLABD) < \underline{CREDACTED} > (MARLABD) < \underline{CREDACTED} > (MARLABD) < \underline{CREDACTED} > (MARL$ 

<<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB) <<u>REDACTED</u>>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED> (MARLAB)

<<REDACTED>@gov.scot>; MS FishHealth < MS. FishHealth@gov.scot>

Subject: RE: Mortality declaration DFF

Hi,

Has <REDACTED> indicated if DFF are to change any of their procedures to ensure this type of mortality doesn't occur in future? Or had they made a consideration of gill health prior to conducting the treatment and veterinary advice was that the fish were fine for the procedure.

Perhaps we should attend anyway to ensure they are on top of the mortality removal, storage and disposal situation and that they have operated in accordance with their BMP.

Cheers < REDACTED>

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Sent: 02 September 2021 08:37

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < CHEDACTED > (MARLAB) < CHEDACT

**Subject:** FW: Mortality declaration DFF

Hello,

Following on from my email of 31/8/21 I have an update from Loch Etive submitted today.

<REDACTED> has reported no further mortalities from Etive 6.

Two reports have come in from Etive 4 for weeks 33 and 34 of 1.2% and 2.3% attributed to Hydrolicer and environmental gill irritation and possibly phytoplankton.

<REDACTED> has summarised the whole Loch Etive situations from their point of view;

"This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don't suspect any new events. I am also including all of the histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn't seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event."

I suggest we keep an eye on the situation bearing in mind we have inspectors in the area w/b 20/9/21. If problems are still ongoing then we could pay them a visit. Are you content with this course of action?

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob<REDACTED>

e: <a href="mailto:</a><a href="mailto:REDACTED">REDACTED</a><a href="mailto:@gov.scot">@gov.scot</a></a>

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth

Sent: 31 August 2021 08:08

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > @gov.scot >; < REDACTED

<REDACTED>(MARLAB)<<REDACTED>@gov.scot>;<REDACTED>(MARLAB)<<REDACTED>@gov.scot>

Cc: <REDACTED> <<<u>REDACTED>@gov.scot</u>>; MS FishHealth <<u>MS.FishHealth@gov.scot</u>>; <REDACTED> (MARLAB) <<<u>REDACTED>@gov.scot</u>>

Subject: FW: Mortality declaration DFF

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from <REDACTED>. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +<REDACTED> S/B: +44 (0)1312 442500 Mob:+<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 30 August 2021 19:45

**To:** MS FishHealth < MS. FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED >

The reports from my sampling across all 4 Loch Etive sites are coming in this evening.

You can tie them in to the submission form as well.

I know the declaration under discussion was for Etive 6, but I will forward you the information for Etive 4 as well, as the hydrolicer went to that site as well and there will be around 3% for wk 34 (last week).

I am just checking that figures are complete before I do a formal submission.

There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>



<REDACTED>

<REDACTED> Dawnfresh Farming.



Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

To: <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk>
Cc: <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

Regards

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: +44 <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s. Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,



<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

# <REDACTED>@dawnfresh.co.uk

From: <REDACTED>(MARLAB) <REDACTED>@gov.scot>

**Sent:** 02 September 2021 10:32

To: MS FishHealth <MS.FishHealth@gov.scot>; Aquaculture Health Policy <aquaculturehealthpolicy@gov.scot>

Cc: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> < George Gov.scot>; < REDACTED> @gov.scot>; < REDACTED>

<REDACTED><<REDACTED>@gov.scot>;<REDACTED>@gov.scot>;<REDACTED>@gov.scot>;

<REDACTED><<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

<REDACTED>(MARLAB) <<REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

<REDACTED> (MARLAB) << REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

<REDACTED>(MARLAB) << REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

Subject: Mortality Event Report MRT02336-MRT02337

Attachment - Mortality event reports MRT02336 and MRT02337

Hi All

Please find attached mortality event report.

If you have any queries about this report please do not hesitate to get in touch.

Regards

**Duty Inspector** 

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)131 244 2500 Fax: +44 (0)1224 295620 a: MS Fishbealth@gov.sco

e: MS.Fishhealth@gov.scot

w: http://www.gov.scot/Topics/marine

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

**Sent:** 02 September 2021 13:32

To: <REDACTED> (MARLAB) <REDACTED>@gov.scot>; <REDACTED>@gov.scot>; <REDACTED>@gov.scot>;

Cc: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Subject: FW: Mortality declaration DFF

Hello,

See below email from Charles,

He has agreed that we should call into Loch Etive when you are down in the Oban area to discuss procedures relating to the reported mortality evens and provision for mortality removal, storage and disposal.

<REDACTED> and <REDACTED>,

I think this will be falling to you both on the Thursday <REDACTED>

If you need any further information please let me know.

<REDACTED>

# <REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)1312 442500 Mob:+44 <REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: Allan C (Charles) (MARLAB) < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>>

Sent: 02 September 2021 13:19

To: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Subject: RE: Mortality declaration DFF

Content with the suggested way forwards, noting in the Mortality Report, proposed FHI actions.

Dawnfresh have submitted a number of documents to us, which we may, or may not, require to be retained – those which do not need to be retained, should be returned or deleted.

# **Thanks**

## **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

# www.gov.scot/marinescotland

From: <REDACTED> (MARLAB) <<REDACTED>@gov.scot>

**Sent:** 02 September 2021 08:37

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<<REDACTED>@gov.scot>; <REDACTED> (MARLAB) << REDACTED>@gov.scot>; MS FishHealth < MS. FishHealth @gov.scot>

Subject: FW: Mortality declaration DFF

Hello,

Following on from my email of 31/8/21 I have an update from Loch Etive submitted today.

<REDACTED> has reported no further mortalities from Etive 6.

Two reports have come in from Etive 4 for weeks 33 and 34 of 1.2% and 2.3% attributed to Hydrolicer and environmental gill irritation and possibly phytoplankton.

<REDACTED> has summarised the whole Loch Etive situations from their point of view;

"This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don't suspect any new events. I am also including all of the histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn't seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event."

I suggest we keep an eye on the situation bearing in mind we have inspectors in the area w/b 20/9/21. If problems are still ongoing then we could pay them a visit. Are you content with this course of action?

#### <REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)1312 442500 Mob:+<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth

Sent: 31 August 2021 08:08

**To:** Allan C (Charles) (MARLAB) < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>; < REDACTED > (MARLAB) < <a href="mailto:Charles.allan@gov.scot">Charles.Allan@gov.scot</a>; < REDACTED > (MARLAB)

<<u><REDACTED>@gov.scot</u>>;<REDACTED>(MARLAB)<<u><REDACTED>@gov.scot</u>>;<REDACTED>(MARLAB)<<u><REDACTED>@gov.scot</u>>

Cc: <REDACTED><<REDACTED>@gov.scot>; MS FishHealth <MS. FishHealth@gov.scot>; <REDACTED>(MARLAB) <<REDACTED>@gov.scot>

Subject: FW: Mortality declaration DFF

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from Richard. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Sent: 30 August 2021 19:45

To: MS FishHealth < MS.FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED >

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Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>



<REDACTED> **CREDACTED> Dawnfresh Farming.** 



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

To: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Cc: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

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Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

# Regards

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: +<REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED</u>>@dawnfresh.co.uk>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

**Subject:** Mortality declaration DFF

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We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,



<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: MS FishHealth < MS. FishHealth@gov.scot>

**Sent:** 17 September 2021 17:23

To: <REDACTED> <<REDACTED>@gov.scot>; <REDACTED> (MARLAB) <<REDACTED>@gov.scot>

Cc: <REDACTED> (MARLAB) <REDACTED>@gov.scot>

Subject: FW: DFF sea lice declaration wk 36

Attachment - Sea lice notification form for week 36 - published on Scotland's Aquaculture website

For awareness prior to visiting Etive next week. You may have to consider conducting an SLA depending on what you witness. I imagine if there is increased boat activity in the area this may attract attention from outwith the industry.

# Cheers < REDACTED>

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

**Sent:** 17 September 2021 15:29

**To:** MS FishHealth < MS.FishHealth@gov.scot > **Cc:** < REDACTED > < <u>REDACTED > @dawnfresh.co.uk</u> >

Subject: DFF sea lice declaration wk 36

Please find attached DFF sea lice numbers for week 36 2021.

I am declaring 1<sup>st</sup> tier breaches at Etive 2 and Etive 3. I am declaring 2<sup>nd</sup> tier breaches at Etive 4 and Etive 6.

# Mitigation Plan

- 1. We have diverted all harvest volume from other DFF sites to Etive in order to take out the largest fish.
- 2. We have hired a 3<sup>rd</sup> party vessel with larger capacity in order to further accelerate our harvest programme.
- $3. \quad \text{Azamethiphos and Deltamethr in bath treatments are ongoing and will continue next week.} \\$
- 4. We have managed to hire in a wellboat for a couple of days to perform Azamethiphos treatments on suitable pens next week.
- 5. We will then re-assess and re-plan.

Please call me if you need any more information.

Regards,

<REDACTED>

# Harry H-Wright BVM & BVS, MRCVS, MSc

<REDACTED> - Dawnfresh Farming



<REDACTED>

E: <REDACTED>@dawnfresh.co.uk

From: <REDACTED> << REDACTED>> On Behalf Of MS FishHealth

Sent: 24 September 2021 11:27

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> @gov.scot>; < REDACTED> @gov.sc

<<REDACTED>@gov.scot>

Subject: FW: Mortality Event Report MRT02405-MRT02406

Attachment - Mortality event report MRT02406 (N.B. MRT02405 out of the scope of this request)

Please see attached.

From: <REDACTED> <<u><REDACTED>@gov.scot</u>>

Sent: 24 September 2021 11:27

To: MS FishHealth < MS. FishHealth@gov.scot >; Aquaculture Health Policy < aquaculturehealthpolicy@gov.scot >

Subject: Mortality Event Report MRT02405-MRT02406

Hi All

Please find attached mortality event report.

If you have any queries about this report please do not hesitate to get in touch.

Regards

**Duty Inspector** 

Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 <REDACTED> S/B: +44 (0)131 244 2500 Fax: +44 (0)1224 295620 e: MS.Fishhealth@gov.scot

w: http://www.gov.scot/Topics/marine

From: <REDACTED> (MARLAB)
Sent: 28 September 2021 09:32

To: <REDACTED> (MARLAB) <<REDACTED>@gov.scot>; MS FishHealth <MS. FishHealth@gov.scot>; <REDACTED> (MARLAB) <<REDACTED>@gov.scot>;

<REDACTED> << REDACTED>@gov.scot> **Subject:** RE: dawnfresh imp 2 notification

I think the meeting notes need to be updated, but the mistake did draw my interest as Etive 6 are trying to get on top of mortality removal and gill health(?) issues.

From: <REDACTED>) (MARLAB) <<REDACTED>@gov.scot>

**Sent:** 28 September 2021 09:00

To: <REDACTED> (MARLAB) <<<u>REDACTED>@gov.scot</u>>; MS FishHealth <<u>MS.FishHealth@gov.scot</u>>; <REDACTED> (MARLAB) <<<u>REDACTED>@gov.scot</u>>;

<REDACTED> < < REDACTED> @gov.scot > Subject: RE: dawnfresh imp 2 notification

## Hi <REDACTED>

I'm a bit confused, the IMP2 was for an import of RTR from NIR to Etive, not from the USA. WE knew Dawnfresh were importing ova from Troutlodge to Frandy due to the issues in Denmark.

Am I missing something?

## Cheers

## <REDACTED>

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Sent:** 24 September 2021 14:00

**To:** MS FishHealth < MS.FishHealth@gov.scot >; < REDACTED > (MARLAB) < < REDACTED > @gov.scot >; < REDACTED > @gov.scot >

<REDACTED> << REDACTED>@gov.scot > Subject: RE: dawnfresh imp 2 notification

Hi,

Just spoke to <REDACTED>, <REDACTED> for Dawnfresh. He said they had a difficult decision due to capacity in FW and the development of welfare issues in FW. The transfer had been delayed by a month and as far as he was aware the biology/marine teams were looking at the risks and mitigations for this movement to occur. He was aware that plans are in place to increase harvesting in Etive but these will be dependent on logistics and need.

Cheers <REDACTED>

#### <REDACTED>

Technical Manager - Fish Health Inspectorate

Marine Scotland – Science

Scottish Government | Marine Laboratory | 375, Victoria Road | Aberdeen AB11 9DB

Tel: +<REDACTED>

S/B: +44 (0)131 244 2500

Mob:+<REDACTED>

FAX: +44 (0)131 244 0944

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth

Sent: 24 September 2021 13:24

To: <REDACTED> (MARLAB) < <<u>REDACTED>@gov.scot</u>>; <REDACTED> @gov.scot>

**Cc:** MS FishHealth < MS.FishHealth@gov.scot > **Subject:** FW: dawnfresh imp 2 notification

Hi,

Just saw this in the DI update which states import from US. Etive 6 has had issues recently/ongoing. I tried to contact <REDACTED>, <REDACTED> (<REDACTED>) and <REDACTED> to discuss if this notification was correct. Haven't had any response, might be worth looking in to.

Cheers <REDACTED>

From: Rocks Lodge < rockslodge@dawnfresh.co.uk>

**Sent:** 23 September 2021 09:14

**To:** MS FishHealth < MS. FishHealth@gov.scot >

Cc: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Subject: dawnfreshimp 2 notification

All, find attached details of stock we intend to transfer this week.....thx <REDACTED>

# <REDACTED>

Rockslodge Trout farm Dawnfresh <REDACTED>

Fol 20210024449 - Document 29

From: Allan C (Charles) (MARLAB) Sent: 17 August 2021 09:15

To: <REDACTED> << REDACTED>@dawnfresh.co.uk>; <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Subject: RE: Etive 3 Gram stain result

Thanks for this <REDACTED>.

Ultimately, the cause of the mortality remains unresolved, although there is no evidence to suggest the involvement of listed viral or bacterial disease, nor of a newly emerging condition.

I know that Dawnfresh will be continuing to observe and attempt to minimise Mortality, reporting mortality above agreed levels where required.

If the mortality increases significantly, or if the presentation changes, the FHI may need to collect samples to investigate further.

I'm happy to discuss further if required.

With best regards

### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: +<REDACTED>

www.gov.scot/marinescotland

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 16 August 2021 22:05

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>; Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>

Subject: RE: Etive 3 Gram stain result

Apologies,

Now with attachment!

Regards,

<REDACTED>

<REDACTED>

<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED>

Sent: 16 August 2021 22:04

To: <REDACTED>@gov.scot' <REDACTED>@gov.scot' >; <REDACTED>@gov.scot' <REDACTED>@gov.scot' >

Subject: Etive 3 Gram stain result

<REDACTED>Charles,

Please see the final result from the gram stain for the Etive 3 fish.

Gram stain

Gram stain was carried out for gills and internal organs of Fish 1. There is evidence of a Gram-negative systemic infection in this fish, although the primary significance of this finding within the ten fish sampled is uncertain. An opportunist infection of fish compromised for other affections is also a possibility. Careful bacteriology of moribund fish (if any) would be advisable for further investigation.

This fits with the scenario that an environmental challenge (potentially phytoplankton + low oxygen levels) has killed fish, and that a proportion of remaining fish have picked up a general infection from the breakdown of the mortalities.

Regards

<REDACTED>

<REDACTED>

<REDACTED> **CREDACTED> Dawnfresh Farming.** 



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

#### <REDACTED>

# <REDACTED>@dawnfresh.co.uk

From: Allan C (Charles) (MARLAB)

Sent: 12 August 2021 22:24

To: <REDACTED> << REDACTED>@dawnfresh.co.uk>

Subject: RE: DFF Histology

Thanks for this <REDACTED>

#### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

www.gov.scot/marinescotland

From: <REDACTED> <<u><REDACTED>@dawnfresh.co.uk</u>>

**Sent:** 12 August 2021 22:21

To: <REDACTED> (MARLAB) <<<u>REDACTED>@gov.scot</u>>; Allan C (Charles) (MARLAB) <<u>Charles.Allan@gov.scot</u>>

Subject: DFF Histology

<REDACTED>/Charles,

Please feel free to ring me tomorrow if you wish to discuss.

I'll be speaking to the histologist tomorrow to see if she has any further thoughts.

Regards,

# <REDACTED>

<REDACTED>

<REDACTED> **CREDACTED> Dawnfresh Farming.** 



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: Allan C (Charles) (MARLAB) Sent: 13 August 2021 11:50

To: <REDACTED> << REDACTED>@dawnfresh.co.uk>; <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Subject: RE: DFF Histology

Good Morning <REDACTED>

Many thanks for your summary, and again for your e-mail last night.

From the position of statutory disease control, in the absence of other outstanding results, the observations made on the histology samples does not support the suspicion of the involvement of a listed disease in the losses of fish which have been observed on your sites in Loch Etive.

I think that you are correct, there is a primary factor at work here, giving rise to the observed damage to the gills, but most likely a secondary confounding factor, or factors giving rise to the mortality.

I would be interested to know the outcome of the gram stain, and any subsequent identification of the bacteria, but that is for interest rather than a statutory requirement. I am minded of cases from the 90's where fish died with no visible marks, but were subsequently identified with an acute bacterial infection of the heart – I don't think these cases are similar as bacteria were only observed in the heart of one fish, would be surprised if this is a *post mortem* artefact, but don't think that is the significant confounding factor in this case.

Hopefully you'll come to a conclusion on the causes of the mortality and you are successful in managing the loss – please feel free to call me to discuss further if you wish or you feel that I can contribute further.

With best regards

## **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

www.gov.scot/marinescotland

**From:** <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk>

Sent: 13 August 2021 11:09

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < < REDACTED>@gov.scot>

Subject: FW: DFF Histology

## Hi Charles/<REDACTED>

I have just had a TEAMS meeting with the histologist for this case. This is a brief summary of our discussions.

- The main feature is acute gill changes (telangiectasis see the photos on the report) in *all* the fish. The most likely cause is a waterborn toxic insult, potentially phytoplankton.
- I asked if the changes might be caused by chronic low/borderline oxygen levels but this I am advised that this *doesn't* fit what is being seen on histology.
- The vaccine associated reactions are within normal range apart from 1 fish where there was liver involvement (we wouldn't have scored any of the fish above a Speilberg of 1 at sampling, so my feel is that this was very localised to the block of tissue inspected, and not of relevance to the event.)
- I see nephrocalcinosis relatively frequently, and given that these fish have been in the sea for 6 weeks, this would trace back to the freshwater source. It was notable that it was present in 7/10 fish. However, my experience is that I have never associated nephrocalcinosis with mortality events though I recognise that if other challenges were present, some reduction of kidney function might have the potential to contribute? However, my judgement is that it isn't a major factor in this case.
- I was surprised that there were no gut changes on the histology given the yellow fluid+digesta seen throughout the gut, however, this would then fit with transient challenge associated with presence of mortalities in the pens which have begun to break down at high temperatures. This could easily cause transient G.I.T. issues.
- We discussed the fish that was showing signs of a systemic bacterial infection (you will have noted that we are awaiting the results of a gram stain) and I specifically asked if it could be either *Yersinia* or *Renibacterium*, but she thought not and said that in her opinion it looked most like an *Aeromonas spp.*, but that she was seeking second opinions from 2 other histologists. For me, this would again fit with contamination from suboptimal mortality removal.

I did a 10m plankton trawl when I was on site on 7/8/21 and the plankton populations present were different to the normal collection of diatoms (usually dominated by Skeletonema) and similar – there were a couple of Gonyaulax spp, of Protoperidinium spp. and some Chaetoserus decipiens. BUT...... they were present in numbers of <10 cells per litre, so at the time of sampling I wouldn't associate them with fish kills. There were also some simple flagellates whizzing around, but I was unable to identify them.

Of course, given that plankton blooms can be incredibly transient, my single plankton trawl may have been indicative of nothing at all, or of a potential population of phytoplankton that could have been harmful if present in "bloom" numbers.

So best information currently points towards a water quality (possibly plankton?) event, leading to a mortality event, which has then caused additional issues as the affected fish begin to break down in warm water conditions (14oC) prior to removal.

I will let you know if gram stains/second opinions suggest anything further.

For additional information, the small fish (<500g) at Etive 2 and Etive 3 that we have so far been discussing are from 3 different freshwater origins (Selcoth, Rocks Lodge and Kinnaird) covering 2 egg supplying companies (Aquasearch and Troutex) and sites (Refsgard Fiskeri and Ravningkær). Egg inputs in both cases were around May 2020.

My actions for the business will be to again push production to look at mort removal frequency, and to again push for plankton monitoring to be put higher on the list of priorities.

Give me a ring if you wish to discuss further.

Best Regards,

<REDACTED>



<REDACTED> **CREDACTED> Dawnfresh Farming.** 



Dawnfresh Farming
Bothwellpark Industrial Estate
Uddingston
Lanarkshire
G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED>

Sent: 12 August 2021 22:21

To: <REDACTED>@gov.scot' <REDACTED>@gov.scot'>; 'Charles.Allan@gov.scot' < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>>

Subject: DFF Histology

<REDACTED>/Charles,

Please feel free to ring me tomorrow if you wish to discuss.

I'll be speaking to the histologist tomorrow to see if she has any further thoughts.

Regards,

<REDACTED>

<REDACTED>

<REDACTED>,

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: <REDACTED> (MARLAB) < <<u>REDACTED>@gov.scot</u>>

Sent: 31 August 2021 09:46

**To:** MS FishHealth < MS.FishHealth@gov.scot >; < REDACTED > (MARLAB) < < REDACTED > @gov.scot >; < REDACTED > @gov.scot >

<REDACTED> (MARLAB) < < REDACTED>@gov.scot >; < REDACTED> (MARLAB) < < REDACTED>@gov.scot >

Cc: <REDACTED> <<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB) <<u>REDACTED</u>>@gov.scot>

Subject: RE: Mortality declaration DFF

Hi,

Do we know if any of the cages that were treated used the Skamik system that was referred to in some docs but not <REDACTED> email? I don't know if the system has been improved but it caused issues when it was first used as a means to remove sea lice, and the skin pathology report (where available) suggests damage to the epithelium and 'complete loss of superficial skin layers' in a couple of fish. Have they resolved the mort removal issues?

Cheers <REDACTED>

**From:** MS FishHealth < MS.FishHealth@gov.scot >

**Sent:** 31 August 2021 08:31

 $\textbf{To:} < \texttt{REDACTED} > (\texttt{MARLAB}) < \underline{\texttt{Charles.Allan@gov.scot}} > ; \\ \texttt{MS.FishHealth@gov.scot} > ; \\ \texttt{AllanC (Charles) (MARLAB)} < \underline{\texttt{Charles.Allan@gov.scot}} > ; \\ \texttt{MS.FishHealth@gov.scot} > ; \\ \texttt{MS.FishHealth@go$ 

<<u>REDACTED>@gov.scot</u>>

Cc: <REDACTED> <<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>

Subject: RE: Mortality declaration DFF

Provisionally we have <REDACTED> heading down to Machrihanish on Monday and <REDACTED> on Thursday.

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

# Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Sent: 31 August 2021 08:20

To: MS FishHealth < MS. FishHealth@gov.scot >; Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < Charles. Allan@gov.scot >;

**Subject:** RE: Mortality declaration DFF

## Hi <REDACTED>

If a visit is required sooner could it be tied in with one of the export trips to Machrihanish next week? There and back in a day is too long so if someone was planning to stay overnight part way back they could head towards Oban and visit Etive the following day.

## Cheers

## <REDACTED>

From: MS FishHealth < MS. FishHealth@gov.scot >

Sent: 31 August 2021 08:08

 $\textbf{To:} \ Allan \ C \ (Charles) \ (MARLAB) < \underline{Charles.Allan@gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot} >; < REDACTED > (MARLAB) < \underline{<REDACTED > @gov.scot$ 

 $\textbf{Cc:} < \textbf{REDACTED} > < \underline{< \textbf{REDACTED}} @ gov.scot > ; \\ < \underline{\mathsf{REDACTED}} > @ gov.scot > ; \\ < \underline{\mathsf$ 

Subject: FW: Mortality declaration DFF

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from <REDACTED>. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

**Sent:** 30 August 2021 19:45

**To:** MS FishHealth < MS.FishHealth@gov.scot >

Subject: RE: Mortality declaration DFF

Hello < REDACTED>,

The reports from my sampling across all 4 Loch Etive sites are coming in this evening. You can tie them in to the submission form as well.

I know the declaration under discussion was for Etive 6, but I will forward you the information for Etive 4 as well, as the hydrolicer went to that site as well and there will be around 3% for wk 34 (last week).

I am just checking that figures are complete before I do a formal submission.

There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our vet was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>

<REDACTED>

<REDACTED> cREDACTED> Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

### <REDACTED>@dawnfresh.co.uk

From: MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

To: <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk>
Cc: <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

Regards

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: +<REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<u><REDACTED>@dawnfresh.co.uk</u>>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s.

Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,

<REDACTED>

<REDACTED>

<REDACTED> Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

From: Allan C (Charles) (MARLAB) Sent: 02 September 2021 13:49

To: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

Subject: RE: Mortality declaration DFF

#### <REDACTED>

If it adds value to any case that we have, or contributes to our understanding of the situation in Loch Etive, we can justifiably retain it, but otherwise it should be returned to the company or deleted.

### Thanks

#### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

www.gov.scot/marinescotland

From: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

**Sent:** 02 September 2021 13:25

To: Allan C (Charles) (MARLAB) < <a href="mailto:Charles.Allan@gov.scot">Charles.Allan@gov.scot</a>>

Subject: RE: Mortality declaration DFF

Thanks Charles,

I take it I should be deleting the Histology reports? I have moved them across to the DI received mail box. I have saved some correspondence on Objective. I will need to speak to Sonia about deleting this from the system!

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: Allan C (Charles) (MARLAB) < <a href="mailto:charles.Allan@gov.scot">charles.Allan@gov.scot</a>>

**Sent:** 02 September 2021 13:19

To: <REDACTED> (MARLAB) < <REDACTED>@gov.scot>

Subject: RE: Mortality declaration DFF

Content with the suggested way forwards, noting in the Mortality Report, proposed FHI actions.

Dawnfresh have submitted a number of documents to us, which we may, or may not, require to be retained – those which do not need to be retained, should be returned or deleted.

Thanks

#### **Charles Allan**

Fish Health Inspectorate Group Leader
Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: +44 (0)131 244 3583 Mobile: <REDACTED>

## www.gov.scot/marinescotland

From: <REDACTED> (MARLAB) << REDACTED>@gov.scot>

**Sent:** 02 September 2021 08:37

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot>; < REDACTED> (MARLAB) < < REDACTED>@gov.scot>; < REDACTED> (MARLAB)

<<u>REDACTED</u>>@gov.scot>; <REDACTED> (MARLAB) <<u>REDACTED</u>>@gov.scot>; <REDACTED> @gov.scot>; <REDACTED>

<<u><REDACTED>@gov.scot</u>>; <REDACTED> (MARLAB) <<u><REDACTED>@gov.scot</u>>; MS FishHealth <<u>MS.FishHealth@gov.scot</u>>

Subject: FW: Mortality declaration DFF

Hello,

Following on from my email of 31/8/21 I have an update from Loch Etive submitted today.

<REDACTED> has reported no further mortalities from Etive 6.

Two reports have come in from Etive 4 for weeks 33 and 34 of 1.2% and 2.3% attributed to Hydrolicer and environmental gill irritation and possibly phytoplankton.

<REDACTED> has summarised the whole Loch Etive situations from their point of view;

"This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don't suspect any new events. I am also including all of the histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn't seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event."

I suggest we keep an eye on the situation bearing in mind we have inspectors in the area w/b 20/9/21. If problems are still ongoing then we could pay them a visit. Are you content with this course of action?

## <REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: MS FishHealth

Sent: 31 August 2021 08:08

To: Allan C (Charles) (MARLAB) < Charles. Allan@gov.scot >; < REDACTED > (MARLAB) < CHARLAB) < CHARLAB | C

 $\textbf{Cc:} < \textbf{REDACTED} > < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLAB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.scot \\ > ; < \textbf{REDACTED} > (\textbf{MARLABB}) < \underline{< \textbf{REDACTED}} \\ @ gov.sco$ 

Subject: FW: Mortality declaration DFF

Hello Charles,

Mortality issues at Loch Etive seems to be grumbling on. I have forwarded the latest communication from Richard. Also attached a summary of the mortality reported so far. Etive 6 reporting the highest numbers.

Not sure if we should be considering a site visit? We have <REDACTED> and <REDACTED> passing on 20/9/21. Would require a bit if shuffling of sites but perhaps they could pay visit or we can wait and see how things develop between now and then?

Let me know what you think.

<REDACTED>

<REDACTED> Senior Fish Health Inspector Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: <REDACTED> S/B: +44 (0)1312 442500 Mob:<REDACTED>

e: <REDACTED>@gov.scot

w: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 30 August 2021 19:45

**To:** MS FishHealth < MS. FishHealth@gov.scot >

**Subject:** RE: Mortality declaration DFF

Hello < REDACTED>,

The reports from my sampling across all 4 Loch Etive sites are coming in this evening. You can tie them in to the submission form as well.

I know the declaration under discussion was for Etive 6, but I will forward you the information for Etive 4 as well, as the hydrolicer went to that site as well and there will be around 3% for wk 34 (last week).

I am just checking that figures are complete before I do a formal submission.

There are still suggestions of gill irritation, and then probably additional damage from the necessary lice treatments with the hydrolicer – but I still struggle to equate this with the level of losses seen in the affected pens.

Our <REDACTED> was also out on site on Friday going round all the pens helping out with the lice counts and he took bacteriology samples and heart p.c.r. We usually use these to monitor for SAV and PRV-3, but in this case I will see if we can also get PRV-1 and CMS tested for.

Regards

<REDACTED>

<REDACTED>

<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

**From:** MS.FishHealth@gov.scot < MS.FishHealth@gov.scot >

Sent: 27 August 2021 09:14

**To:** <REDACTED> <<u><REDACTED</u>>@dawnfresh.co.uk> **Cc:** <REDACTED> @dawnfresh.co.uk>

Subject: RE: Mortality declaration DFF

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning <REDACTED>,

Thank you for providing the Etive 6 mortality data for week 33, I spoke to <REDACTED> yesterday following a complaint that we have received, I requested that he send through the last four weeks mortality data (weekly totals and % rate) along with any results/reports that may have been generated following health visits to the site. Would you be able to send the data through, I have attached the email sent yesterday and copied him in.

## Regards

<REDACTED>
Senior Fish Health Inspector
Marine Scotland - Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: <REDACTED>
Mobile: <REDACTED>
E: <REDACTED>@gov.scot

W: https://www.gov.scot/marine-and-fisheries/

From: <REDACTED> <<<u>REDACTED>@dawnfresh.co.uk</u>>

Sent: 26 August 2021 23:43

To: MS FishHealth < MS. FishHealth@gov.scot >

Subject: Mortality declaration DFF

Please find attached our mortality declaration for Etive 6 for week 33, including numbers and %'s.

Conclusions remain that these are all hydrolicer related mortalities.

We are now clearing Etive 4 of hydrolicer related mortalities, which will fall into a week 34 declaration.

Please ring me if you have any questions.

Regards,

<REDACTED>

<REDACTED>

<REDACTED> - Dawnfresh Farming.



Dawnfresh Farming Bothwellpark Industrial Estate Uddingston Lanarkshire G71 6LS

<REDACTED>

<REDACTED>@dawnfresh.co.uk

FARMED FISH MORTALITY EVENT - NOTIFICATION FORM

Business Name Business No Site Name Site No Start date: End date: (if applicable of Size of fish: Average weight of affected population Species: Year class: weekly? Inversary (EFS1087, 06/08/2021 - 4750g 357g Size of fish: Average weight of affected population Species: Year class: weekly? Rainbow 2021 Weekly Mortality rate recorded(%): Explained /unexplained: If explained, please supply details: If unexplained, describe observations: Total mortality during event (if available): Fish handling, low oxygen, fish deliveries. Mc

Date completed:

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion. Insert additional lines as required.



# Report - Histopathology

REPORT NO.
PA-G93UFR8M-RH

PA CASE NO. 1396sc21

ORDERED AS Standard - H

REPORTED ON 31-08-2021

CASE PATHOLOGIST

Customer

CLIENT

Dawnfresh Farming Ltd

SUBMITTED BY

(Dawnfresh Farming Ltd)

REPORT TO

(Dawnfresh

wnfresh D

(Dawnfresh

DFF 105-21

RECEIVED DATE

25-08-2021

TRANSFER DATE

Farming Ltd)
SUBMITTER REF.

INVOICE TO

Dawnfresh Farming Ltd

**Details of Sample Materials** 

SITE NAME

Etive 3 (Port na Mine)

SITE REF FS1101 AMPLE DATE

20-08-2021

STOCK TYPE

SAMPLE NUMBER

**SAMPLE TYPE** 

Formalin fixed tissue

SPECIES

Rainbow trout

COMMENTS

**Results summary** 

Tissue samples from four fish [15 to 18] were examined.

#### Gills

- Lamellar branchitis, multifocal to diffuse, minimal to mild, with occasional cellular degeneration and rare necrosis [All samples].
- Lamellar hyperplastic branchitis, multifocal, minimal [16] to mild, with occasional lamellar fusion & resolving haemorrhage/thrombi [17].

#### Skin & Skeletal muscle:

- No tissue present [16].

#### Heart:

- Atrial tissue not present (All samples).
- Endocarditis, multifocal, minimal [15].
- Pericarditis, multifocal, minimal [17].

#### Liver:

- No tissue present [16].
- Inflammatory cell infiltrate, chronic, multifocal, minimal [18] to mild [17].

#### Spleen

- Inflammatory cell infiltrate, chronic, multifocal, mild [16].
- Congestion, multifocal to diffuse, mild [15, 16, 17].

#### Kidney:

- Interstitial nephritis, multifocal, mild [16] with intralesional mineralisation [17].
- Mineralisation, intratubular (luminal), multifocal, minimal [16] to mild [15, 17].
- Interstitial melanomacrophages, increased [18].



## **Comments**

Multifocal lamellar inflammation, with occasional cellular degeneration, is evident in all of the gill samples, suggesting recent irritation of the lamellar surfaces. Mild chronic proliferative lesions are also present in two samples, which may represent previous handling/environmental damage. None of the gill lesions are considered to be functionally significant.

Mild renal and splenic inflammation is evident in one fish, suggesting previous immune stimulation (e.g. vaccination, previous infection).

Minimal to mild renal mineralisation, compatible with nephrocalcinosis, is present in three of the samples. A localised inflammatory response is associated with mineral deposits in one of the fish.

All other findings are not considered to be significant.



# **Histopathological Findings**

SAMPLE NO.	ORGAN/TISSUE	FINDINGS
1	Multiple organs	SKIN, SKELETAL MUSCLE, HEART, LIVER, PANCREAS, & INTESTINE: No significant lesions. SPLEEN: Diffuse congestion. KIDNEY: Multifocally, there are small to moderate amounts of mineral deposits in the tubular lumens. PYLORIC CAECAE: Increased numbers of apoptotic bodies in the mucosal epithelium.
	Gill	19 filaments examined Mild, multifocal to diffuse, lamellar branchitis, with occasional cellular degeneration and localised haemorrhage Focal areas of lamellar epithelial lifting.
Multiple organs  2  Gill	Multiple organs	SKIN & SKELETAL MUSCLE: No tissue present. HEART: Ventricle only. Minimal, multifocal, endocarditis. LIVER: No tissue present. SPLEEN: Multifocal congestion. Mild, multifocal, lymphohistiocytic inflammatory cell infiltrate. KIDNEY: Mild, multifocal, chronic, interstitial nephritis. Multifocally, there are small amounts of mineralised material within tubular lumens. PANCREAS & INTESTINE: No significant lesions. PYLORIC CAECA: Limited tissue present. No significant lesions.
	Gill	16 filaments examined Mild, multifocal to diffuse, lamellar histiocytic to granulocytic branchitis, with variable cellular degeneration and occasional necrosis Minimal, multifocal, lamellar hyperplastic branchitis.
3	Multiple organs	SKIN, SKELETAL MUSCLE, PANCREAS & INTESTINE: No significant lesions. HEART: Ventricle only. Minimal, multifocal, pericarditis. LIVER: Minimal to mild, multifocal, lymphocytic inflammatory cell infiltrate. SPLEEN: Multifocal congestion. KIDNEY: Multifocally, there are moderate amounts of mineralised material within tubular lumens. Mild, multifocal, interstitial nephritis, with intralesional mineralised deposits. PYLORIC CAECAE: Increased numbers of apoptotic bodies in the mucosal epithelium.
	Gill	17 filaments examined Mild, multifocal, lamellar histiocytic branchitis Mild, multifocal, lamellar hyperplastic branchitis, with occasional lamellar fusion and resolving haemorrhage/thrombi.
4	Multiple organs	SKIN, SKELETAL MUSCLE, HEART (ventricle only), & INTESTINE: No significant lesions. LIVER: Minimal, multifocal, chronic inflammatory cell infiltrate. KIDNEY: Increased numbers of melanomacrophages in the renal interstitium. PYLORIC CAECAE & PANCREAS: Limited tissue present. No significant lesions.
	Gill	12 filaments examined Mild, multifocal, lamellar histiocytic branchitis, with occasional cellular degeneration.



# **Additional Information Supplied by Submitter**

TRANSFER DATE

AVERAGE WEIGHT 370 g

WATER TYPE Saltwater WATER TEMP.

VACCINE

SUSPICION/ASSUMPTION

# Received samples - detailed list

INDIVIDUAL	SAMPLE TYPE	ID	BARCODE	CAGE	BATCH	TISSUES	SAMPLING DATE
15	Formalin fixed tissue	15	K2GX75KF	P08	216SEAST	Multiple	2021-08-20
16	Formalin fixed tissue	16	5ZA9WT82	P08	216SEAST	Multiple	2021-08-20
17	Formalin fixed tissue	17	NDEZT66U	P08	216SEAST	Multiple	2021-08-20
18	Formalin fixed tissue	18	9Y5GTYEY	P08	216SEAST	Multiple	2021-08-20

-END OF REPORT-

#### For your information

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FARMED FISH MORTALITY EVENT - NOTIFICATION FORM

Mortality rate recorded(%): Explained /unexplained: If explained, please supply details: If unexplained, describe observations: Total mortality during event (if available): Additional information (e.g. action taken): No obvious moribunds. Some gut abnormalities. Low environmental oxygen? Histology samples with Pharmaq Analytiq - rr

Date completed: 07/08/2021

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion. Insert additional lines as required.



# Report - Histopathology

REPORT NO. PA-EZ2DQCCP-RH PA CASE NO. 1395sc21

ORDERED AS Standard - H

REPORTED ON 30-08-2021

**CASE PATHOLOGIST** 

#### Customer

CLIENT

Dawnfresh Farming Ltd

SUBMITTED BY

(Dawnfresh Farming Ltd)

REPORT TO

(Dawnfresh

(Dawnfresh

SUBMITTER REF.

Farming Ltd)

DFF 105-21

**INVOICE TO** 

Dawnfresh Farming Ltd

# **Details of Sample Materials**

Etive 4 20-08-2021 SITE REF STOCK TYPE

FS1112

SAMPLE NUMBER SAMPLE TYPE

Formalin fixed tissue

RECEIVED DATE 25-08-2021 TRANSFER DATE

Rainbow trout

SPECIES

COMMENTS

## **Results summary**

Dissected tissues from 3 fish: 12, 13, 14.

1-3

- Partial loss of epithelium and scales (13), complete loss of superficial skin layers (14), likely to be non-pathological.

#### Skeletal Muscle:

- Occasional individual red muscle fibre necrosis (14).

- Very slight focal myocardial inflammation and necrosis within the spongy muscle (13, 14).

#### Liver:

- Very slight focal inflammation, likely to have followed recent focal hepatocyte necrosis (12).
- Slight focal or perivascular inflammation (13, 14).
- Some evidence of clear vacuoles within hepatocyte nuclei, slight (13), more moderate (12).

- Slight focal tubule epithelial necrosis or older tubule degeneration, associated with nephrocalcinosis (12).
- Occasional individual degenerating tubules (13, 14).
- Slight multifocal interstitial separation (12).
- Low numbers of circulating leucocytes or loose haemopoietic cells within tissue/vascular spaces (12, 14).
- Slight eosinophilic or hyaline droplet inclusions within the epithelium of occasional tubules (14).

#### Spleen:

- Occasional individual cell pyknosis and leucocytes or loose haemopoietic cells within some blood spaces (12).
- Minor congestion (12, 13).

- Numerous bacteria within the lumen (12). Variable epithelial separation, uncertain if pathological.

- Slight multifocal epithelial hyperplasia, with thickening of lamellar margins and slight partial infilling (all).
- Slight associated lamellar margin inflammation and sub-epithelial or occasionally surface necrosis (all).
- Slight focal epithelial separation from lamellar margins and surfaces (12).
- Occasional focal lamellar adhesions, with slight hyperplastic bridging or fusion (14).



- Slight individual or small groups of lamellar thrombosis and haemorrhage (13, 14).
- Occasional resolving lamellar thrombosis (all).

## Comments

Fish 12 showed questionable evidence of circulatory or osmoregulatory disturbance in the kidney and possibly the intestinal mucosa and gills, although not in other tissues. There was an apparent intestinal bacterial overgrowth in this fish, although a primary bacterial enteritis appeared unlikely. The findings may be a consequence of moribund or compromised condition rather than primary pathological changes, but the cause couldn't be determined.

Occasional foci of liver inflammation in each fish appeared within common sample variation, although the appearance in 12 suggested there may have been localised hepatocyte necrosis beforehand. The extent wouldn't be expected to compromise function. Evidence of vacuoles within hepatocyte nuclei in 12 and 13 is of unknown cause and significance, but not associated with obvious hepatocyte degeneration.

Heart and red skeletal muscle inflammation in 13 and 14 appeared very slight and no compromise to function would be expected. A subclinical viral cardiomyopathy/myopathy would be possible.

Slight degenerative kidney tubule pathology in fish 12 appeared to be associated with nephrocalcinosis and possibly incidental to other findings. Very minor individual tubule degeneration was also present in 13 and 14, with no mineralised material identified. The extent in all fish appeared unlikely to compromise function.

The gills all showed similar slight hyperplastic and inflammatory pathology, mostly within the lamellar margins. Non-specific responses to water-borne environmental irritation would be probable, with no compromise to respiratory capacity expected. Low level lamellar vascular damage may be a consequence of handling and treatment, particularly in 13 and 14.

A detailed clinical and gross pathological description may help with interpretation, but the findings are regarded as inconclusive overall, with no clear single diagnosis possible.



# **Histopathological Findings**

SAMPLE NO.	ORGAN/TISSUE	FINDINGS
	Liver	Very occasional small foci of inflammation, likely to have followed focal hepatocyte necrosis. Some vacuolation within the nuclei of moderate numbers of hepatocytes. Moderate area of poor cell integrity, separation and haemorrhage at the cut margin, thought unlikely to be pathological.
	Kidney	Very slight individual tubule epithelial necrosis or more advanced degeneration, some associated with suspected mineralised material within the lumens. Slight multifocal interstitial separation, with loose haemopoietic cells within some tissue spaces.
	Spleen	Loose haemopoietic cells or leucocytes within some blood spaces. Occasional individual cell pyknosis within the pulp. Slight congestion.
1	Gut	Slight diffuse epithelial separation and some fragmentation. Numerous bacteria within the lumen.
	Pyloric caeca	No significant findings. No pancreatic exocrine tissue visible.
	Skin/Muscle, Heart	No significant findings.
	Gill	14 filaments. Slight multifocal epithelial hyperplasia, with small foci of infilling and thickening of lamellar margins. Slight associated inflammation and slight focal subepithelial inflammation within lamellar margins. Occasional slight focal oedematous epithelial separation or focal lifting from lamellar margins, some with slight individual cell necrosis. Low numbers of old thromboses. Several small focal areas of epithelial disruption and sloughing, thought unlikely to be pathological.
	Skin	Partial loss of epithelium and scales.
	Heart	Single very small focus of myocardial inflammation and necrosis within the spongy muscle
	Liver	Occasional relatively small foci of inflammation and some traces of inflammatory cells within the parenchyma. Occasional vacuolated hepatocyte nuclei.
	Kidney	Occasional individual thin-walled or degenerating tubule. Minor interstitial separation, probably not pathological.
2	Spleen	Slight congestion.
	Pyloric caeca, Gut	Slight epithelial separation and fragmentation.
	Skeletal Muscle, Pancreas	No significant findings.
	Gill	13 filaments. Very slight multifocal epithelial hyperplasia, with variable thickening of lamellar margins. Slight associated inflammation and occasional surface or sub-epithelial necrosis. Low numbers of individual and small groups of lamellar capillary stasis or thrombosis and occasional small foci of lamellar haemorrhage. Occasional resolving thrombosis.
	Skin	Non-pathological loss of outer skin layers.
	Skeletal Muscle	Occasional individual red muscle fibre necrosis.
	Heart	Occasional small focus of myocardial inflammation and necrosis within the spongy muscle
	Liver	Occasional small foci of inflammation, some appearing perivascular.
	Kidney	Slight eosinophilic or hyaline droplet accumulation within the epithelium of occasional tubules. Occasional individual degenerating tubules. Loose haemopoietic cells or leucocytes within some blood spaces.
3	Spleen	Small area of separation and haemorrhage at the cut margin, thought to be non-pathological.
	Pyloric caeca	No significant findings. No pancreatic exocrine tissue visible.
	Gut	Some epithelial fragmentation.
	Gill	16 filaments. Very slight multifocal epithelial hyperplasia, with variable thickening of lamellar margins and occasional lamellar bases. Occasional small focus of lamellar adhesions and hyperplastic bridging or fusion. Slight associated inflammation and surfac or sub-epithelial necrosis. Occasional individual and small groups of lamellar thrombosis or haemorrhage. Occasional resolving thrombosis.



# **Additional Information Supplied by Submitter**

TRANSFER DATE

AVERAGE WEIGHT 1.3 kg

WATER TYPE Saltwater WATER TEMP.

VACCINE

SUSPICION/ASSUMPTION

# Received samples - detailed list

INDIVIDUAL	SAMPLE TYPE	ID	BARCODE	CAGE	BATCH	TISSUES	SAMPLING DATE
12	Formalin fixed tissue	12	REVDPBXR	T02	211SEAST	Multiple	2021-08-20
13	Formalin fixed tissue	13	66K28EQ4	T07	19NRLRVT	Multiple	2021-08-20
14	Formalin fixed tissue	14	4ARM53MM	T07	19NRLRVT	Multiple	2021-08-20

-END OF REPORT-

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PA Diagnostics Terms of Business.

FARMED FISH MORTALITY EVENT - NOTIFICATION FORM

Business Name Business No Site Name Site No Start date: End date: (if applicable of Size of fish: Average weight of affected population Species: Year class: weekly? Rainbow' 2021 Weekly or 5 2.750g 2.3Kg

Mortality rate recorded(%): Explained /unexplained: If explained, please supply details: If unexplained, describe observations: Total mortality during event (if available): Additional information (e.g. action taken): 1,702 (2.59%)

Additional information (e.g. action taken): Diver removal of mortalities possibly hybricolariston possibly hybricolariston

Date completed: 01/09/2021

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion. Insert additional lines as required.

#### FARMED FISH MORTALITY EVENT - NOTIFICATION FORM

Business Name Business No Site Name Site No Start date: End date: (if applicable of Size of fish: Average weight of affected population Species: Year class: weekly? Rainbow' 2021 Weekly or 5 2.750g 2.3Kg

Mortality rate recorded(%): Explained /unexplained: If explained, please supply details: If unexplained, describe observations: Total mortality during event (if available): Additional information (e.g. action taken): To be confirmed - so far 25,303 - 6.12% No ongoing excess mortality suspected. Possibly phytoplankton

Additional information (e.g. action taken): To be confirmed - so far 25,303 - 6.12% No ongoing excess mortality suspected. Diver removal ongoing, but dive Teams now being caught up in physidemic.

Date completed: 01/09/2021

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion. Insert additional lines as required.



# Report - Histopathology

REPORT NO. PA-NHVQJ87U-RH PA CASE NO. 1393sc21

**INVOICE TO** 

ORDERED AS Standard - H

REPORTED ON 30-08-2021

Dawnfresh Farming Ltd

CASE PATHOLOGIST

### Customer

CLIENT

Dawnfresh Farming Ltd

SUBMITTED BY

(Dawnfresh Farming Ltd)

REPORT TO

(Dawnfresh

(Dawnfresh

SUBMITTER REF. DFF 105-21

Farming Ltd)

Etive 6 20-08-2021 SITE REF STOCK TYPE

**Details of Sample Materials** 

FS1288

1-7

SAMPLE NUMBER SAMPLE TYPE

Formalin fixed tissue

RECEIVED DATE

25-08-2021 TRANSFER DATE

Rainbow trout

**SPECIES** 

**COMMENTS** 

## **Results summary**

Tissue samples from seven fish [1 to 7] were examined.

- Lamellar branchitis, multifocal to diffuse, minimal to mild, with occasional cellular degeneration and necrosis [All samples].
- Lamellar hyperplastic branchitis, multifocal, minimal to mild, with occasional lamellar fusion and vascular dysplasia [1 to 5, 7].
- Lamellar thrombosis, multifocal, minimal [1].
- Haemorrhage, resolving, localised, mild, with occasional erythrophagocytosis [2, 3].
- Filament dysplasia, focal, moderate, with lamellar proliferation [5].

#### Skeletal muscle, red myofibres:

- Inflammatory cell infiltrate, chronic, multifocal, minimal [5] to mild [1].

### Heart:

- No atrium present [All samples].
- Pericarditis, multifocal, minimal [5] to occasionally mild [6].
- Endocarditis, multifocal, minimal [5] to occasionally mild [6].

## Liver:

- Tissue not present [3].
- Inflammatory cell infiltrate, chronic, multifocal, minimal [1, 2, 4, 7].
- Circulating leucocytes, very low [4, 5].

- Accumulation of leucocytes and/or haemopoietic cells in vascular spaces [1, 2, 7].
- Congestion, multifocal to diffuse, mild [2, 4, 5].

#### Kidney:

- Interstital nephritis, multifocal, mild [3].
- Tubular (intraluminal) cellular debris, multifocal, minimal [1].
- Tubular epithelial cell eosinophilic cytoplasmic droplets, multifocal, occasional [1 to 3, 6].
- Circulating leucocytes, low [1, 2, 4, 5].

### Exocrine pancreas:

- Tissue not present [4, 6].
- Zymogen granule depletion, multifocal, moderate [1].



## **Comments**

Multifocal to diffuse lamellar inflammation, with occasional degenerative changes, are evident in all of the gill samples suggesting recent irritation to the lamellar surfaces. Mild lamellar proliferative lesions with occasional vascular dysplasia are also present in most samples, suggestive of previous handling and/or environment damage. None of the gill lesions are considered to be functionally significant.

Minor heart and/or red skeletal muscle inflammatory lesions are present in three fish, which may represent a subclinical viral myopathy.

Mild renal interstitial inflammation is evident in one fish, indicating previous immune stimulation in the kidney (e.g. vaccination, previous infection).

All other findings are minimal and not considered to be clinically significant.



# **Histopathological Findings**

SAMPLE NO.	ORGAN/TISSUE	FINDINGS
1	Multiple organs	SKIN: No significant lesions. SKELETAL MUSCLE, RED MYOFIBRES: Minimal to mild, multifocal, endomysial, lymphohistiocytic inflammatory cell infiltrate. SKELETAL MUSCLE, WHITE MYOFIBRES: No significant lesions. HEART: Ventricle only. Minimal to occasionally mild, multifocal, pericarditis. LIVER: Minimal, multifocal, predominately periductular, lymphohistiocytic inflammatory cell infiltrate. SPLEEN: Larger vascular spaces contain low to moderate numbers of leucocytes and/or haemopoietic cells. KIDNEY: Multifocally, tubular epithelial cells occasionally contain brightly eosinophilic cytoplasmic droplets. Renal tubules occasionally contain small amounts of cellular debris. Low numbers of circulating leucocytes. PANCREAS: Limited tissue present. Multifocal zymogen granule depletion within exocrine acinar cells. PYLORIC CAECA: Limited tissue present. No significant lesions. INTESTINE: No significant lesions.
	Gill	15 filaments examined Multifocal, lamellar, sub-epithelial, histiocytic branchitis, with occasional cellular degeneration Occasional lamellar thrombosis Minimal to occasionally mild, multifocal, lamellar hyperplastic branchitis, with frequent pigmented macrophages, and occasional lamellar fusion.
Multiple organs  2  Gill	Multiple organs	SKIN: Localised separation of the superficial epidermis. SKELETAL MUSCLE: No significant lesions. HEART: No significant lesions. LIVER: Minimal, multifocal, periductular, lymphohistiocytic, inflammatory cell infiltrate. Occasionally, the nuclei of the hepatocytes contain a large discrete vacuole. SPLEEN: Mild, multifocal, congestion. Larger vascular spaces contain variable numbers of leucocytes and/or haemopoietic cells. KIDNEY: Small foci of interstitial haemorrhage, with pigmented macrophages. Low numbers of circulating leucocytes. Tubular epithelial cells occasionally brightly eosinophilic cytoplasmic droplets. Occasional tubular individual epithelial cell necrosis. PANCREAS: No significant lesions. PYLORIC CAECA: Limited tissue present. Frequent apoptotic cells in the mucosal epithelium. INTESTINE: No significant lesions.
	Gill	14 filaments examined Multifocal, lamellar, sub-epithelial, histiocytic branchitis, with occasional cellular degeneration Focal areas of resolving haemorrhage and eryphrophagocytosis Minimal to occasionally mild, multifocal, lamellar epithelial hyperplasia or hyperplastic branchitis, with occasional lamellar fusion and vascular dysplasia.
3	Multiple organs	SKIN, SKELETAL MUSCLE, HEART, SPLEEN, PANCREAS, & INTESTINE: No significant lesions. LIVER: Not present. KIDNEY: Mild, multifocal, interstitial nephritis. Tubular epithelial cells occasionally brightly eosinophilic cytoplasmic droplets. PYLORIC CAECA: Limited tissue present. No significant lesions.
3	Gill	17 filaments examined Multifocal, lamellar, sub-epithelial, branchitis Small foci of lamellar haemorrhages with occasional eryphrophagocytosis Minimal to mild, multifocal, lamellar hyperplastic branchitis, with occasional cellular degeneration and lamellar fusion.
4	Multiple organs	SKIN: Focal loss of the epidermis (sampling artefact suspected). SKELETAL MUSCLE: red myofibres only. No significant lesions. HEART: No significant lesions. LIVER: Minimal, focal, periductular, lymphocytic, inflammatory cell infiltrate. Very low numbers of circulating leucocytes. SPLEEN: Multifocal vascular congestion, with frequent pigmented macrophages. KIDNEY: Multifocal vascular congestion, with frequent pigmented macrophages. Low numbers of leucocytes and/or haemopoietic cells within vascular spaces. PANCREAS: No tissue present. PYLORIC CAECA: Limited tissue present. No significant lesions. INTESTINE: No significant lesions.
	Gill	14 filaments examined.  - Multifocal, lamellar, sub-epithelial, branchitis, with occasional cellular degeneration.  - Minimal to occasionally mild, multifocal, lamellar epithelial hyperplasia, with occasional vascular dysplasia.



SAMPLE NO.	ORGAN/TISSUE	FINDINGS
5	Multiple organs	SKIN, PANCREAS, PYLORIC CAECAE, & INTESTINE: No significant lesions. SKELETAL MUSCLE, RED MYOFIBRES: Minimal, focal, perivascular, lymphocytic inflammatory cell infiltrate. SKELETAL MUSCLE, WHITE MYOFIBRES: No significant lesions. HEART: Ventricle only. Minimal, multifocal, pericarditis. Minimal, focal, endocarditis. LIVER: Low numbers of circling leucocytes. SPLEEN: Diffuse congestion. KIDNEY: Low numbers of leucocytes and/or haemopoietic cells within vascular spaces.
	Gill	13 filaments examined Multifocal, multifocal, lamellar, sub-epithelial, branchitis, with cellular degeneration and occasional necrosis Minimal to occasionally mild, multifocal, lamellar hyperplastic branchitis, with occasional lamellar fusion Localised filament dysplasia, with associated lamellar epithelial hyperplasia.
6	Multiple organs	SKIN, SKELETAL MUSCLE, LIVER, & INTESTINE: No significant lesions. HEART. Ventricle only. Minimal to occasionally mild, endocarditis and pericarditis. SPLEEN: Diffuse congestion. KIDNEY: Tubular epithelial cells occasionally contain brightly eosinophilic cytoplasmic droplets. PANCREAS: No tissue present. PYLORIC CAECA: Limited tissue present. No significant lesions.
	Gill	14 filaments examined. - Minimal to mild, multifocal, lamellar, sub-epithelial, histiocytic branchitis. - Minimal, multifocal, lamellar epithelial hyperplasia.
7	Multiple organs	SKIN: SKELETAL MUSCLE, HEART, KIDNEY, PANCREAS & INTESTINE: No significant lesions. LIVER: Minimal, multifocal, lymphohistiocytic inflammatory cell infiltrate. SPLEEN: Larger vascular spaces contain low to moderate numbers of leucocytes and/or haemopoietic cells. PYLORIC CAECA: Limited tissue present. No significant lesions.
7	Gill	16 filaments examined Minimal to mild, multifocal, lamellar, sub-epithelial, histiocytic branchitis, with occasional cellular degeneration Mild, multifocal, lamellar epithelial hyperplasia, with variable lamellar fusion and occasional vascular dysplasia.

# **Additional Information Supplied by Submitter**

TRANSFER DATE

AVERAGE WEIGHT 470 g

WATER TYPE Saltwater WATER TEMP.

VACCINE

SUSPICION/ASSUMPTION

# Received samples - detailed list

INDIVIDUAL	SAMPLE TYPE	ID	BARCODE	CAGE	BATCH	TISSUES	SAMPLING DATE
1	Formalin fixed tissue	1	AA2XPSXU	S02	205RLRVT	Multiple	2021-08-20
2	Formalin fixed tissue	2	Z3Q6A9NS	S02	205RLRVT	Multiple	2021-08-20
3	Formalin fixed tissue	3	EWA3VYD4	S02	205RLRVT	Multiple	2021-08-20
4	Formalin fixed tissue	4	E69GD3F6	S01	202RLRVT	Multiple	2021-08-20
5	Formalin fixed tissue	5	Z3S729F6	S01	202RLRVT	Multiple	2021-08-20
6	Formalin fixed tissue	6	99624H9Z	S08	204RLRVT	Multiple	2021-08-20
7	Formalin fixed tissue	7	8H5U564N	S08	204RLRVT	Multiple	2021-08-20

-END OF REPORT-

#### For your information

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