

Scottish Salmon Watch, 29 December 2019

[Cleaning Tox-Sick Scottish Salmon](#)



- Benchmark's "game changing technology" set for launch in Scotland during 2020?
- Redacted FOI reveals Benchmark wish to push forward with trials in Scotland & Mowi "wants to get this off the ground as soon as possible" (Benchmark 're-started' trials in Scotland in May 2019 & submitted more documents in December 2019)
 - Cabinet Secretary for Rural Economy lobbied to "speed things up" & offered "further support to reach a position wherby trials could be started in Scotland"
- FOI reveals toxic chemicals discharged by wellboats at salmon farms around Scotland including illegal discharge by The Scottish Salmon Company in Loch Roag
 - 'CleanTreat' used alongside the top secret BMK08 (perhaps also called Ectosan), Azamethiphos & Deltamethrin but not toxic Hydrogen Peroxide
- SEPA refuse FOI but concedes it met with Benchmark five times since October 2018
 - VMD refuse FOI on BMK08 citing commercial confidentiality
- CleanTreat may involve "remote discharge of effluent water" in so-called 'discharge zones' (Benchmark claims that chemical wastes are collected & then incinerated)
- SEPA yet to publish Scottish Pollutant Release Inventory data on wellboat use in 2018
 - Ten-fold increase in toxic chemicals used on salmon farms from 2006 to 2016

An 'environmentally and welfare friendly' method of lice treatment developed in Scotland is "expected" by the end of 2020 according to a [recent trading update from Norwegian-controlled Benchmark](#). The 'CleanTreat' purification system would be used with the "next generation sea lice treatment" [BMK08](#) which [the manufacturer claims has "no environmental impact"](#) [1].



Benchmark's CleanTreat system won the aquaculture innovation award at AquaNor 2019, and is set for commercial release next year. Credit: Benchmark Holdings

Campaigners are cautiously supportive of 'CleanTreat' but uneasy at the confidentiality surrounding BMK08 (possibly also branded as ['Ectosan'](#) and believed to be Azamethiphos-based) and trials in Scotland. Read more via "[CleanTreat: FOI Disclosures by the Scottish Government to Scottish Salmon Watch](#)" (also included in full below).

Scottish Salmon Watch is calling on the Scottish Government to [follow Norway in banning the use of toxic chemicals on salmon farms using tarpaulins](#). In 2017, [a front-page article in The Sunday Times revealed](#) that there had been a ten-fold increase in the use of toxic chemicals on salmon farms in Scotland over the previous decade [but data on chemical use via wellboats was not included or publicly available](#).

The [weight of peer-reviewed scientific evidence](#) detailing lethal impacts of [Azamethiphos](#), [Deltamethrin](#), [Emamectin benzoate](#) and [Hydrogen peroxide](#) (used by salmon farms to kill sea lice parasites) on [marine life such as shellfish](#) and [kelp](#) (seaweed) is now overwhelming. Read more via [\[2\] Media Backgrounder: Chemically Embalmed Scottish Salmon](#) (also included in full below).

In September 2018, the Norwegian Government proposed to ban the release of toxic chemicals used to kill sea lice at salmon farms effectively outlawing the use of tarpaulin bath treatments. "The move follows surprising and controversial early findings in one scientific study that hydrogen peroxide, regarded as the least environmentally harmful of the chemicals used to kill sea lice, can damage shrimp stocks," [reported Fish Farming Expert](#).

In January 2019, [Fish Farming Expert reported](#): "Norway has banned the use of tarpaulin bath treatments on salmon farms within 500 metres of shrimp or spawning grounds. In those farms, bathing agents can now only be used when delousing treatment is done in a wellboat, not in a net pen with a tarpaulin around it. The treatment water must then be transported away from the farm. The rule changes will affect 426 sites."

"Scottish salmon does not leap up waterfalls onto your plate but is bathed in a lethal cocktail of toxic chemicals which are currently discharged untreated into Scotland's pristine waters," said Don Staniford, [Director of Scottish Salmon Watch](#). "Scotland should follow Norway's lead and ban toxic chemicals used on salmon farms near shellfish spawning grounds. Benchmark's 'CleanTreat' purification system could very well be a 'game-changer' but BMK08 is still shrouded in secrecy. CleanTreat could be a Trojan horse designed to open the floodgates to ever more toxic chemicals."



"The public surely have a right to know about any secret trials taking place in Scottish waters," continued Staniford (author of '[Silent Spring of the Sea](#)'). "The Scottish Government and SEPA must come clean on the chemically embalmed nature of Scottish salmon by disclosing data on all the chemicals used on salmon farms and in wellboats. If 'CleanTreat' is all that it is cracked up to be then shellfish across Scotland can safely take off their gas masks and crack open the Champagne. Consumers meanwhile should never treat themselves to toxic Scottish salmon!"



The Sunday Times [reported](#) (29 December 2019):

Official fears revealed over toxic threat of salmon trade

Briefing note on water purification tech highlights potential danger to marine life from pesticides

Mark Macaskill

December 29 2019, 12:01am,
The Sunday Times

Internal emails show that in 2018, Scottish government officials described CleanTreat, which removes medicines from treatment water before returning the "cleaned" water to the sea, as a "game-changer". The industry's umbrella body, the Scottish Salmon Producers' Association, has been lobbying ministers to allow the technology, which has been tested successfully in Norway, to be tested in Scottish waters.

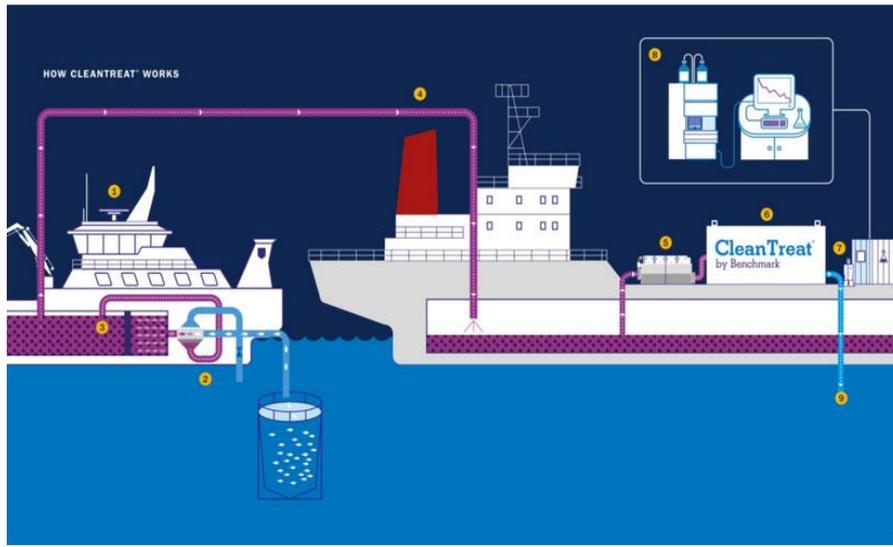
The documents suggest that executives at CleanTreat have been coached by civil servants in recent months to ensure their proposal for trials in Scotland wins approval from bodies such as Marine Scotland and the Scottish Environment Protection Agency.

A Scottish government spokeswoman said: "This is a potentially ground-breaking treatment which has been developed in Scotland and which should be trialled in Scotland with relevant and appropriate safeguards and monitoring in place."

Is CleanTreat as squeaky clean as it is portrayed or are there dirty secrets?

Scottish Salmon Watch has been monitoring the new development in sea lice control [since December 2017 when 'Ectosan' was first publicised](#) and [described by the Scottish Government as "a significant game-changer"](#). In September 2018, CleanTreat's purification system was described as a "game changing technology" by Benchmark in [an email to Fergus Ewing, the Cabinet Secretary for Rural Economy](#) (who has lobbied to speed up the approval process).

[Click here to find out more about CleanTreat](#)



BMK08 has "excellent animal welfare and environmental credentials" [claimed Benchmark in November 2019](#). Benchmark's [largest shareholder is Norwegian-owned Ferd Capital](#) - controlled by [Norwegian investor and Norway's fifth richest person Johan Henrik Andresen](#). Benchmark's [second largest shareholder is Norwegian-owned Kverva who owns salmon farming giant SalMar](#) (which itself co-owns [Norskott Havbruk, owner of Scotland's second largest salmon farmer Scottish Sea Farms](#)). In December 2019, [Benchmark announced losses of £83.1 million](#) but in [2017 estimated "£40-50m peak sales potential for next generation sea lice treatment"](#).



"So far, the breakthrough sea lice treatment system, which cleanses treatment water after delousing in well boats, has only been trialled in Norway," [reported Fish Farmer in August 2019](#). "It has successfully treated more than 30,000 tonnes of fish, according to John Marshall, head of Animal Health at Benchmark, which has developed the innovation over a 10-year period....However, there is some impatience among Scottish salmon farmers over bottlenecks in the regulatory system that have so far prevented them from trialling CleanTreat in Scotland. Marshall said his company had been approached by all the Scottish producers, interested in deploying CleanTreat at their farms, and he hoped there would be Scottish trials soon. 'The target was for the end of this year but, realistically, it will be next year,' he told Fish Farmer."

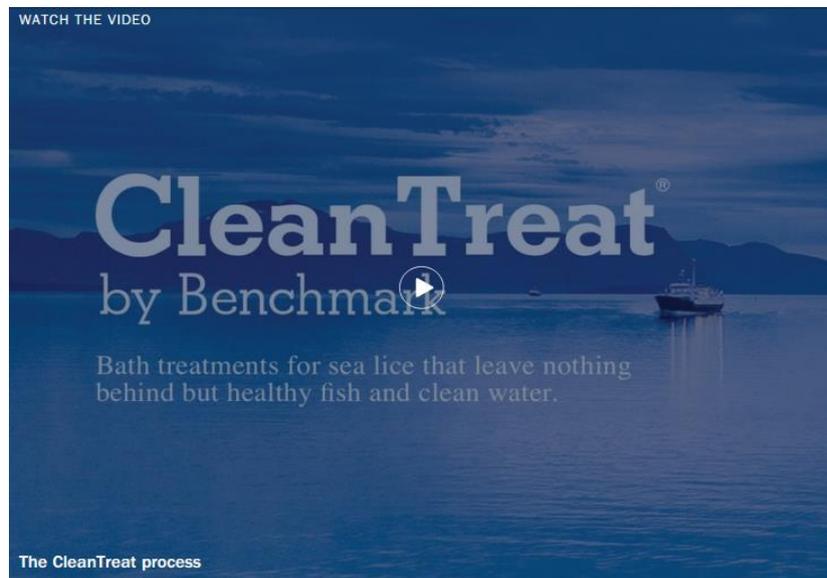


The CleanTreat vessel alongside a wellboat off the coast of Norway

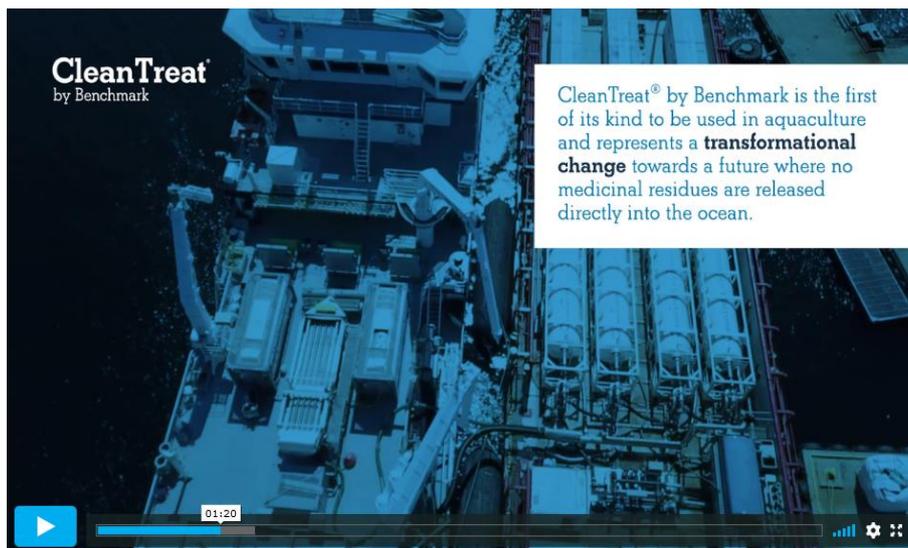
"It's not a case of having to have new regulation," [continued](#) John Marshall, head of Animal Health at Benchmark. "I think there is regulation in Scotland to deal with it but, of course, regulations are interpreted and it's about the interpretation of how you use the current regulation along with CleanTreat....We obviously don't want Scotland to lose out, but we will work where there is opportunity, demand and less resistance. Scotland has to get its act together but I believe they are doing that."



"There are at least two new products it could bring to market and I think it could open the door to other products not yet considered – perhaps from other areas, depending on regulations," [admitted John Marshall, head of Benchmark Animal Health, in March 2018.](#)



Benchmark [claimed in 2018](#) that CleanTreat is "suitable for all currently available bath treatments used against sea lice, other than hydrogen peroxide" and "has been trialled with a number of sea lice treatments compounds including pyrethroids, deltamethrin, azamethiphos, and Benchmark's new trial bath treatment". It "uses a unique purification system to compound and solidify the chemicals used in the treatments" and "these solids can then be incinerated at one of the world's three specialist processing plants for these operations," said John Marshall, head of Benchmark Animal Health. "There are at least two new products it could bring to market and I think it could open the door to other products not yet considered – perhaps from other areas, depending on regulations," he said.



"After a tough 2019 financial year, Benchmark has listed the commercial launch of CleanTreat and their novel sea lice treatment BMK08 as top priorities for 2020," [reported The Fish Site](#) (23 December 2019).

In July 2019, Scottish Salmon Watch visited Benchmark's laboratory at Ardtoe (a polite request for an official site visit was not replied to):



Scottish Salmon Watch this week wrote to Benchmark requesting a visit to CleanTreat's facilities in Scotland in early 2020 and for specific information on BMK08.

Contact:

Don Staniford: 07771 541826 (salmonfarmingkills@gmail.com)

[CleanTreat: FOI Disclosures by the Scottish Government to Scottish Salmon Watch](#)

Documents [disclosed to Scottish Salmon Watch by the Scottish Government via FOI on 19 December 2019 \(FOI-19-02443\)](#) shed some light on Benchmark's 'CleanTreat' and the Scottish Government's support for trials in Scotland.

Benchmark [wrote to the Cabinet Secretary for Rural Economy \(Fergus Ewing\) in a letter dated June 2019](#) thanking him for "your continued support for our work with the CleanTreat innovation to remove medicines from treatment water before it is discharged back into the environment".

A [Cabinet Briefing in September 2019](#) for a meeting in the Scottish Parliament between Fergus Ewing (as Cabinet Secretary for Rural Economy) and Benchmark stressed that Benchmark was invited "to ensure that such sustainable technologies, like CleanTreat, are not only developed in Scotland, but that Scotland is also an attractive place to trial such technologies".

In terms of 'next steps' the [Cabinet Briefing in September 2019](#) stated that: "Marine Scotland is facilitating a number of meetings with BAML [Benchmark], regulators and advisers to ensure BAML is clear on the next steps and regulators and advisers will continue to work with BAML, to enable them to submit the required evidence and provide the required assurances to determine an application for a trial".

"Benchmark were content with the meeting on 20th September and the information requirements made clear," continued the [Cabinet Briefing in September 2019](#). "Benchmark agreed to provide the required information by December which will allow a full application to be submitted to Marine Scotland."

In late September 2019, Benchmark invited the Scottish Government, SEPA and the Veterinary Medicines Directorate to an 'urgent' visit of the CleanTreat wellboat (understood to be docked in Leith). "This is the last opportunity ahead of any trials in the UK, as we have now completed our planned trials in Norway," [wrote Benchmark in an email dated 24 September 2019](#).

Other documents were redacted or refused with the Scottish Government citing the "confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest" and because some information was deemed "internal legal advice and disclosure would breach legal professional privilege". "Disclosure of this particular information would, or would likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests," stated the Scottish Government's letter dated 19 December 2019 [3].

Scottish Salmon Watch will be filing a review request with the Scottish Government with a view to filing an appeal to the Scottish Information Commissioner (along with an appeal re. SEPA's refusal to provide similar information).

[FOI-19-02443](#) disclosed 11 PDF files including:

[#1: Letter from the SSPO to SEPA copied to Scottish Ministers](#)

SEPA was lobbied by the Scottish Salmon Producers Organisation (SSPO) to conduct field trials of CleanTreat in Scotland after being "trialled successfully in Norway":

"You undertook to look again at the potential for trials of novel lice treatment methods and the barriers in the way of Scottish trials for the CleanTreat innovation which the developers believe has no environmental impact at sea," wrote the Chief Executive of the Scottish Salmon Producers Organisation to the Terry A'Hearn, Chief Executive of SEPA in May 2019. "The novel approach has been trialled in Norway successfully and now requires field trials in Scotland.... We understand that there have been discussions with the company involved though no progress has been made to take forward trials in Scotland."



30 May 2019

Mr T A'Hearn
SEPA
Strathallan House
Castle Business Park
Stirling
FK9 4TZ

By Email

Dear Terry,

[Redacted]



In this context, you undertook to look again at the potential for trials of novel lice treatment methods and the barriers in the way of Scottish trials for the CleanTreat innovation which the developers believe has no environmental impact at sea. The novel approach has been trialled in Norway successfully and now requires field trials in Scotland. It has the potential to reduce other medicinal treatment methods for lice significantly and reduce environmental impact from farms. We understand that there have been discussions with the company involved though no progress has been made to take forward trials in Scotland. If you required further information on the detail of the issue, we can provide it, though your team have worked with [Redacted] at Marine Scotland and the company involved directly already.

[Redacted]

I am copying this letter to Roseanna Cunningham, Cabinet Secretary for Cabinet Secretary for Environment, Climate Change and Land Reform and Fergus Ewing, Cabinet Secretary for the Rural Economy.

I look forward to your early response.

Yours sincerely,

[Redacted]

Julie Hesketh-Laird
Chief Executive

c.c. Roseanna.Cunningham.msp@parliament.scot
Fergus.Ewing.msp@parliament.scot

Scottish Salmon Producers Organisation
83 Princes Street, Edinburgh, EH2 2ER
enquiries@scottishsalmon.co.uk
www.scottishsalmon.co.uk @SSPOsays
Reg. No. SC152347

[#2: Redacted letter dated 3 October 2019 from the SSPO to SEPA copied to Scottish Ministers](#)

From: [Redacted] @gov.scot> On Behalf Of Cabinet Secretary for the Rural Economy
Sent: 03 October 2019 13:00
To: [Redacted] @gov.scot>
Cc: Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECLR@gov.scot>; Minister for Rural Affairs and the Natural Environment <MinisterRANE@gov.scot>; [Redacted] @gov.scot>; DG Economy <DGEconomy@gov.scot>; Director of Marine Scotland Mailbox <Directormarinescotland@gov.scot>; Palmer MR (Mike) <Mike.Palmer@gov.scot>; [Redacted] gov.scot>; [Redacted] [Redacted] @gov.scot>; [Redacted] @gov.scot>
Subject: Letter from the CEO of the SSPO

[Redacted]

To be aware of the attached correspondence that Mr Ewing and Ms Cunningham have been copied.

Kind regards

[Redacted]

Cabinet Secretary for the Rural Economy
[Redacted]

From: [Redacted] <[\[Redacted\]@scottishsalmon.co.uk](mailto:[Redacted]@scottishsalmon.co.uk)>

Sent: 03 October 2019 12:12

To: ComplaintsAdministrator@sepa.org.uk

Cc: ComplaintsAdministrator@sepa.org.uk; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>; Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; [Redacted] <[\[Redacted\]@sepa.org.uk](mailto:[Redacted]@sepa.org.uk)>; [Redacted] <[\[Redacted\]@sepa.org.uk](mailto:[Redacted]@sepa.org.uk)>; [Redacted] <[\[Redacted\]@scottishsalmon.co.uk](mailto:[Redacted]@scottishsalmon.co.uk)>; [Redacted] <[\[Redacted\]@sepa.org.uk](mailto:[Redacted]@sepa.org.uk)>; [Redacted] <[\[Redacted\]@sepa.org.uk](mailto:[Redacted]@sepa.org.uk)>

Subject: Letter from the CEO of the SSPO

Dear Sirs,

[Redacted]

Julie

Julie Hesketh-Laird
Chief Executive
Scottish Salmon Producers' Organisation

83 Princes Street, Edinburgh, EH2 2ER
07843 170483
0131 202 6211
jhesketh-laird@scottishsalmon.co.uk
www.scottishsalmon.co.uk

Twitter: @JulieHL



[#3: Redacted emails referring to a briefing for a meeting on 25 September 2019 between the Cabinet Secretary for Rural Economy \(Fergus Ewing\) and Benchmark \(developers of CleanTreat\)](#)

[Redacted]

From: [Redacted]
Sent: 23 October 2019 11:05
To: Cabinet Secretary for the Rural Economy; [Redacted] (MARLAB)
Cc: Cabinet Secretary for the Environment, Climate Change and Land Reform; Minister for Rural Affairs and the Natural Environment; Director of Marine Scotland Mailbox; Director of Environment & Forestry; McDonnell T (Tim); [Redacted]
[Redacted] Palmer MR (Mike); [Redacted]
[Redacted] (MARLAB); [Redacted]
[Redacted]
Subject: RE: Briefing - Meeting with Benchmark on 25 September

█ thanks. Marine Scotland and ENFOR are discussing next steps tomorrow and we'll seek to update shortly thereafter.

Regards, █

[#4: Email in August 2019 referring to a forthcoming visit by the Cabinet Secretary for Rural Economy \(Fergus Ewing\) to Benchmark's offices and his "kind words" and "positive engagement"](#)

From: [Redacted] @bmkanimalhealth.com>
Sent: 26 August 2019 16:04
To: Cabinet Secretary for the Rural Economy
Cc: [Redacted]
Subject: Re: Correspondence from the Cabinet Secretary for the Rural Economy - Animal Health

Hi [Redacted]

Many thanks for the email and please thank the Cabinet Secretary for his kind words about our recent award and positive engagement. We would be delighted for him to visit our offices and to discuss the subject at his convenience and look forward to your thoughts around most suitable dates considering his busy calendar.

Best regards

[Redacted]

[Redacted]



Benchmark Animal Health

Mobile : [Redacted]

Email: [Redacted] [@bmkanimalhealth.com](mailto:)

Web: www.bmkanimalhealth.com, www.benchmarkplc.com

From: [Redacted] @gov.scot> on behalf of "CabSecRE@gov.scot" <CabSecRE@gov.scot>
Date: Monday, 26 August 2019 at 12:12
To: [Redacted] @bmkanimalhealth.com>
Cc: "CabSecRE@gov.scot" <CabSecRE@gov.scot>
Subject: Correspondence from the Cabinet Secretary for the Rural Economy - Animal Health

Dear [Redacted]

Please see attached correspondence from Fergus Ewing, The Cabinet Secretary for the Rural Economy.

Thanks,
[Redacted]

[Redacted]

Cabinet Secretary for Rural Economy
CabsecRE@gov.scot
[Redacted]

[#5: Letter from the Cabinet Secretary for Rural Economy \(Fergus Ewing\) to the Head of CleanTreat \(Neil Robertson\) dated August 2019 stating that "Scotland is open for business" and that he is "keen to see early trials in Scotland"](#)

Cabinet Secretary for the Rural Economy
Fergus Ewing MSP



Scottish Government
Riaghaltas na h-Alba
gov.scot

F/T: [Redacted]
E: scottish.ministers@gov.scot

Neil Robertson
Head of Cleantreat
G1 Bush House Edinburgh Technopole
Penicuik
EH26 0BB

By email; [Redacted] [@bmkanimalhealth.com](mailto:[Redacted]@bmkanimalhealth.com)

26 August 2019

Dear Mr Robertson,

I would like to once again congratulate you and the team at Benchmark Animal Health for winning the 2019 Innovation Award at AquaNor's 40th anniversary for the development of CleanTreat technology. Scotland is proud of its innovative sector which has won two consecutive innovation awards at the world's largest aquaculture technology exhibition and is leading the way in sustainable aquaculture. The success and opportunity of Scotland's aquaculture industry was clear to see at the Scottish Aquaculture Supply Chain Seminar. Put simply, Scotland is open for business.

During the seminar I noted the request from Scottish producers that CleanTreat trials begin in Scotland as soon as possible. As you will be aware, the environmental impacts of salmon farming in Scotland were thoroughly discussed during the recent Scottish Parliament Inquiries. I am therefore keen to see early trials in Scotland and I would like to meet you at your offices in Edinburgh at the earliest opportunity to discuss progress since my meeting with [Redacted] in November of last year. I would be grateful if you could get in touch with my private office to arrange a suitable date at your earliest convenience [CabSecRE@gov.scot].

I look forward to our meeting

Yours sincerely,



FERGUS EWING

Scottish Ministers, special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See www.lobbying.scot

St Andrew's House, Regent Road, Edinburgh EH1 3DG
www.gov.scot



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[#6: Email in August 2019 from the office of the Cabinet Secretary for the Rural Economy suggesting a "letter of congratulation" from Mr Ewing to Benchmark and "the letter can offer an early visit and meeting"](#)

From: [Redacted] <[Redacted]@gov.scot> **On Behalf Of** Cabinet Secretary for the Rural Economy
Sent: 22 August 2019 15:34
To: [Redacted] <[Redacted]@gov.scot>
Cc: Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; [Redacted] <[Redacted]@gov.scot>;
Director of Marine Scotland Mailbox <Directormarinescotland@gov.scot>; Palmer MR (Mike)
<Mike.Palmer@gov.scot>; [Redacted] <[Redacted]@gov.scot>; [Redacted] <[Redacted]@gov.scot>; [Redacted] <[Redacted]@gov.scot>; [Redacted] <[Redacted]@gov.scot>
Subject: Meeting with Benchmark
Importance: High

█ see below.

Suggest a letter of congratulations is prepared from Mr Ewing to Benchmark and the letter can offer an early visit and meeting.

Grateful if this could be with us tomorrow so we can issue.

Kind regards
[Redacted]

Cabinet Secretary for the Rural Economy
█
St Andrews House
[Redacted]
[Redacted]

[#7: Redacted briefing for the Cabinet Secretary for Rural Economy \(Fergus Ewing\) for a meeting with Benchmark on 25 September 2019 in the Scottish Parliament "to discuss the potential trial of the technology in Scotland"](#)

BRIEFING FOR FERGUS EWING, CABINET SECRETARY FOR RURAL ECONOMY AND CONNECTIVITY

MEETING WITH NEIL ROBERTSON AND JOHN MARSHALL: BMK HOLDINGS AQUACULTURE: WEDNESDAY 25 SEPTEMBER NOVEMBER, 11:30-12:30, T305, SCOTTISH PARLIAMENT

Date and time of engagement	<ul style="list-style-type: none">• Wednesday 25 September 2019• 11:30 – 12:30pm
Where	<ul style="list-style-type: none">• T305, The Scottish Parliament
Key messages	<ul style="list-style-type: none">• SG supports the sustainable growth of the aquaculture sector. It currently employs more than 12,000 people and is worth around £620M of added value to the economy but if not correctly regulated could have unacceptable impacts on the environment• As a government, we continue to invest significantly in science, research and innovation to underpin and drive forward the sustainability of the sector.• Life Sciences is a key growth sector of the Scottish Economy. Turnover stood at £5.2 billion and Gross Value Added (GVA) stood at £2.4 billion employing almost 40,000 people across 770 organisations.
Who	<ul style="list-style-type: none">• Meeting with Neil Robertson, Head of CleanTreat and John Marshall, Director of Benchmark Animal Health
Why	An opportunity to congratulate Benchmark on winning this year's Aquaculture Innovation award at AquaNOR and discuss the potential trial of the technology in Scotland.
Supporting official	<ul style="list-style-type: none">• [Redacted]• [Redacted]
Attached documents	<ul style="list-style-type: none">• Purpose of Meeting and Top Lines• Company Profile & Biographies: Annex A• Background Information on CleanTreat Scotland Trials; B

Purpose of Meeting

Benchmark's CleanTreat system won this year's Aquaculture Innovation Award at AquaNOR. Mr Ewing attended AquaNOR and participated in a panel with Neil Robertson, Head of CleanTreat, to promote the Scottish supply chain to potential investors.

Given the environmental benefits and sustainability credentials of the CleanTreat system, and huge potential for improvements in fish health, we would like to offer further support to reach a position whereby trials could be started in Scotland.

1. CleanTreat - sea lice treatment technology

- [Redacted]

[Redacted]

Top Lines

- **Congratulations on winning this year's innovation award at AquaNOR.** I am proud that the award has been won by a Scottish company for two consecutive years.
- You will be aware of the recent Scottish Parliamentary Inquiries in Scotland, parts of which focussed on the environmental impacts of salmon farming. That is why I have invited you here today – to ensure that such sustainable technologies, like CleanTreat, are not only developed in Scotland, but that Scotland is also an attractive place to trial such technologies.
- **Grateful to hear about your experiences in Scotland** in progressing to trials of the CleanTreat system and how we can support you
- I understand you have recently met with SEPA, MS-LOT and the VMD, to progress the assessment of a future application for a trial, **please continue to actively engage with that process.**
- There is absolutely no doubt that aquaculture is important for the Scottish economy, contributing £620 million per year in GVA and supporting over 12,000 jobs.
- I am an avid supporter of the industry in Scotland and regularly attend the Aquaculture Industry Leadership Group which is looking to sustainability grow and double the value of aquaculture production in Scotland.
- **Sea lice management, and the tools to do so, are essential to support a thriving Scottish fish farming industry,** that is why Scottish Government published Scotland's 10 Year Farmed Fish Health Framework this year, a Programme for Government commitment in 17/18.
- The industry reported that sea lice levels in 2018 were at their lowest level for 6 years, however we are not complacent and **we have recently strengthened the sea lice regulatory framework, and are committed lowering the sea lice intervention thresholds further in 2021.**
- In order to do so, we must continue to innovate and explore new management methods, particularly those with reduced environmental impacts such as CleanTreat.
- **I commend your commitment that this technology will be open for all** – which will have huge benefits for fish health across the salmon farming nations.

Company Profile

- Benchmark are a pioneering innovation company operating in the aquaculture, agriculture and animal health sectors.
- Benchmark was founded in 2000 when they set their vision to build a profitable business based on the growing need to create a sustainable and ethical future for global food production.
- Changing consumer preferences, stricter regulation and outdated methods of operation were putting pressure on food businesses and supply chains. Malcolm, Roland and Ruth's unique combination of practical, scientific and corporate insight – and decades of experience – meant they were perfectly placed to develop solutions to meet these challenges.
- The company has been progressively built over the ensuing years through a combination of new business launches, organic growth and strategic acquisitions to enhance the group's capabilities and exploit synergies to drive continued growth in revenue and margin.
- Each of these strategic steps has brought into the group new expert management teams who have become shareholders and members of the operating board representing their individual disciplines alongside the original founders.
- In 2018, Benchmark became one of only 5 companies to feature on the London Stock Exchange Group's '1000 companies to Inspire Britain' report for the 5th consecutive year.
- Benchmark employs ~1000 FTE.

Purpose

- The company aim to set a new benchmark for sustainable living, starting with food production.
- As we live longer the number of people in the world that need to be fed also increases – by 75 million every year. At the same time, rapid economic development means that diets are improving, increasing demand for meat and fish. We need to waste less and produce more efficiently, providing better quality food from the same land and water whilst keeping prices affordable.

Towards more sustainable living

- To address the fundamental challenges, we need to harness the power of science to align our production with nature, enabling us to grow the food we need more efficiently and more sustainably.
- The approaches, science and applications we develop can enable sustainable living far beyond food production. Our discoveries and innovation will improve animal health, human health and the wider environment.
- For example, through the development of new vaccines, we can keep animals healthy rather than using antibiotics to treat disease.

Biographies

John Marshall – Head of Animal Health



John is Technical Director of Fish Vet Group (FVG) & Benchmark Vaccines Limited (BVL). John has a degree in Agricultural and Environmental Science (honours in Crop Protection) from Newcastle University and an MBA from Open University with Business Finance and Acquisition Strategy from Harvard University.

He has 20 years' experience in the animal health industry working in R&D, sales and marketing, business development, business unit leadership and leads the Group's R&D teams working on the development, sales and marketing of new animal health vaccines, medicines and biocides. John joined FVG from Novartis Animal Health in 2011

where he was their Head of European Business unit Aquaculture and Head of Global Technical Services – Aquaculture, spending the past 12 years growing the Novartis Aquaculture business and taking to market many new vaccines and pharmaceutical products.

Neil Robertson – Head of CleanTreat



Neil is a veterinary surgeon and has 10 years' experience in the aquaculture industry, including time spent in technical and commercial roles in Norway, UK, Ireland and the Faroe Islands with Novartis Animal Health. More recently, he was European Commercial Manager of Elanco's Aquaculture Division, based in Norway.

He was also an active board member of the Sea Lice Research Centre (SLRC) in Bergen, Norway, representing Novartis Animal Health, and then Elanco.

Neil will work with Benchmark Animal Health's development and commercial teams to support ongoing work towards commercialisation of CleanTreat alongside the launch of Benchmark's next generation sea lice product and third party commercial opportunities.

- The CleanTreat system is proposed to be installed on a stand-alone vessel to clean effluent following transfer of that effluent from a wellboat which conducted treatment of salmon for sea lice. Regulators and advisers are widely supportive of technological solutions to reduce the amount of sealice medicines being discharged to the water environment.
- [Redacted]

- [Redacted]

Since then a number of meetings have been held with BAML and advice has been provided (SEPA has met with BAML to further the advice on the required assessments in May and June).

- The regulators and SEPA have responded quickly to BAML, taking the initiative to set up meetings to provide prompt feedback on information provided.
- [Redacted]
- It is understood that BAML was granted permissions to carry out field trials in Norway and that, under the Norwegian system, environmental effects are not considered during the granting of such permissions.
- The Rural Economy and Connectivity Committee's Salmon farming in Scotland report calls for enhanced and effective regulatory standards to ensure that fish

health issues are properly managed and the impact on the environment is kept to an absolute minimum.

Legislative Framework

- MS-LOT is the licensing authority under the Marine (Scotland) Act 2010 for wellboat discharges and SEPA is a statutory consultee to that process.
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

Current position

- [Redacted]
- [Redacted]

Next Steps

- Marine Scotland is facilitating a number of meetings with BAHL, regulators and advisers to ensure BAHL is clear on the next steps and regulators and advisers will continue to work with BAHL, to enable them to submit the required evidence and provide the required assurances to determine an application for a trial.
- [Redacted]
- Benchmark were content with the meeting on 20th September and the information requirements made clear. Benchmark agreed to provide the required information by December which will allow a full application to be submitted to Marine Scotland.

[#8: Emails referring to a letter dated June 2019 from Benchmark to the Cabinet Secretary for Rural Economy \(Fergus Ewing\)](#)

From: [Redacted] <[Redacted]@bmkholdings.com>
Sent: 19 June 2019 11:04
To: Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>
Cc: [Redacted] <[Redacted]@gov.scot>; [Redacted] <[Redacted]@gov.scot>
Subject: Letter from Malcolm Pye, CEO Benchmark

Please find attached a letter to the Minister.
Kind regards

[Redacted]



M. [Redacted] T. [Redacted]
[Redacted]@bmkholdings.com
benchmarkplc.com
20 Midtown, 20 Procter Street, London, WC1V 6NX, UK

From: [Redacted]
Sent: 20 June 2019 09:22
To: [Redacted] (MARLAB); [Redacted] (MARLAB); [Redacted]
Cc: [Redacted]
[Redacted]
Subject: FW: Letter from Malcolm Pye, CEO Benchmark
Attachments: Letter to Fergus Ewing.pdf

Morning

For awareness. Please see attached letter from Benchmark. We suspect that Mr Ewing may ask for an update soon.

Cheers

[Redacted]

Marine Scotland – Aquaculture, Crown Estate, Recreational Fisheries, EMFF and Europe
Tel: [Redacted]
E-mail: [Redacted]@gov.scot
Web: <http://www.scotland.gov.uk/marinescotland>
Mail: Scottish Government, 1B North, Victoria Quay, Edinburgh EH6 6QQ



[#9: Letter dated June 2019 from Benchmark to the Cabinet Secretary for Rural Economy \(Fergus Ewing\)](#)



Benchmark[®]

Benchmark Holdings plc, 20
Midtown,
20 Procter Street,
London WC1V 6NX
Company no: 4115910
Malcolm.pye@benchmarkplc.com
[Redacted]
benchmarkplc.com

19th July 2019

Fergus Ewing MSP
By email: cabsecr@gov.scot

Dear Minister,

I want to thank you for supporting the Aquaculture Awards seminar and ceremony in Edinburgh and for your continued support for our work with the CleanTreat innovation to remove medicines from treatment water before it is discharged back into the environment. I know that you take a keen interest in the development of technology that can drive the sustainability of the Scottish aquaculture industry, and I recognise that your commitment to real progress in this vital area really does help to get momentum with all the key stakeholders including the important regulatory agencies.

I am certain that we will, together with the aquaculture research and development institutions we have in Scotland and other technology providers, bring forward world class innovations to resolve the challenges that the industry face which are reflected in the public's concerns. Not just with the sustainable management of sea lice but also with other important diseases, such as AGD. Achieving this will allow confidence and further growth in the Scottish sea food industry and drive the success that it is already justly renowned for.

Thank you again for your engagement and support for this work. It is good in these difficult political times to be able to acknowledge the valuable work of our Minister and I look forward to welcoming you to Aquaculture UK at Aviemore next year to continue this important dialogue.

With kind regards
[Redacted]

Malcolm Pye
Chief Executive

[Redacted] @gov.scot, [Redacted] @gov.scot

[#10: Email in October 2019 from Marine Scotland referring to a "very informative" tour around the vessel and "the need for some written responses to SEPA"](#)

From: [Redacted] (MARLAB)
Sent: 11 October 2019 13:45
To: [Redacted]
Cc: [Redacted] (MARLAB)
Subject: RE: Progress

Hi [Redacted]

Thanks, it was good to get a tour around the vessel, very informative.

I've relayed the need for some written responses to SEPA and am awaiting a response from them on the aspects we've already discussed [Redacted]. I hope to have something from them soon and we will be in touch.

I'm off for the next two weeks. If you have any queries, please get in touch with [Redacted] (both copied).

Kind regards

[Redacted]

From: [Redacted] @bmkanimalhealth.com>
Sent: 09 October 2019 14:56
To: [Redacted] (MARLAB) [Redacted] gov.scot>
Subject: Progress

Hi [Redacted]

Really appreciated your visit last week and I hope it was of some use.

[Redacted]

Look forward to your feedback

Best regards

[Redacted]

[Redacted]



Benchmark Animal Health

Mobile : [Redacted]

Email: [Redacted] [@bmkanimalhealth.com](mailto:[Redacted]@bmkanimalhealth.com)

[#11: Emails dated September 2019 discussing an 'Urgent' opportunity to visit the CleanTreat wellboat \(understood to be docked in Leith\) - described as "the last opportunity ahead of any trials in the UK, as we have now completed our planned trials in Norway"](#)

From: [Redacted] <[\[Redacted\]@bmkanimalhealth.com](mailto:[Redacted]@bmkanimalhealth.com)>
Sent: 24 September 2019 18:12
To: [Redacted] <[\[Redacted\]@vmd.defra.gsi.gov.uk](mailto:[Redacted]@vmd.defra.gsi.gov.uk)>; [Redacted] <[\[Redacted\]@gov.scot](mailto:[Redacted]@gov.scot)>; [Redacted] <[\[Redacted\]@SEPA.org.uk](mailto:[Redacted]@SEPA.org.uk)>
Cc: [Redacted] <[\[Redacted\]@bmkanimalhealth.com](mailto:[Redacted]@bmkanimalhealth.com)>; [Redacted] <[\[Redacted\]@bmkanimalhealth.com](mailto:[Redacted]@bmkanimalhealth.com)>
Subject: URGENT- Clean Treat visit opportunity
Importance: High

Hi Everyone,

My apologies for the short notice of this but I have just heard the Clean Treat boat is coming back to [Redacted] this weekend. If you wish to see Clean Treat on the deck of the boat there is an opportunity at 9am on Monday morning (30th) at [Redacted] [Redacted]. This invitation is limited to the recipients of this email as we have H&S restrictions and cannot manage a large party of people. The Clean Treat system will be removed from the deck from lunchtime onwards. This is the last opportunity ahead of any trials in the UK, as we have now completed our planned trials in Norway. The Clean Treat system and lab will be in a warehouse after this date so could be viewed then. Please note that the tour would be given by some of our Clean Treat team but there will be no chemist available.

If you would like to visit please could you let me know by tomorrow at 5pm.

Again, sorry for the short notice.

Kind Regards

[Redacted]

[Redacted]

Animal Health Division
Tel: [Redacted]
Mob: [Redacted]



Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

[Redacted]

From: [Redacted] (MARLAB)
Sent: 26 September 2019 09:45
To: [Redacted]
Cc: [Redacted]
Subject: RE: URGENT- Clean Treat visit opportunity

Thanks [Redacted]

Confirming I'll be there and I'm shoe size [Redacted]

Thanks

[Redacted]

From [Redacted] @bmkanimalhealth.com>
Sent: 25 September 2019 16:35
To: [Redacted] @SEPA.org.uk>; [Redacted] (MARLAB)
[Redacted] @gov.scot>
Cc: [Redacted] @bmkanimalhealth.com>; [Redacted] @bmkanimalhealth.com>; [Redacted] @bmkanimalhealth.com>
Subject: RE: URGENT- Clean Treat visit opportunity

Dear [Redacted]

Yes we would be happy for [Redacted] to visit the boat if she is comfortable with accessing the ship via the gangway. It is not a flat walk, there is a slight camber to it. We will clear a path so she can move to the lab to see inside on the deck of the boat. A couple of points to note for you all;

The address is; [Redacted] for approx. 08:45am

- Please bring photo ID with you to access the port
- On arrival at the port, please wait at the entrance are. Call [Redacted] on [Redacted] and he will come to meet you and escort you to [Redacted] - 08:55am
- Personal Protective Equipment will be provided for you to wear. This will be a high vis jacket, hard hat and safety wellingtons. Please send me you shoe size, and that of [Redacted] asap so we can provide appropriately sized boots. Enter security shelter to change into PPE – 09:00am
- You will receive a safety briefing from the [Redacted] and our [Redacted] for clean treat (10 minutes)
- Access will be limited to the deck of the boat only and inside of the lab
- Commence tour of CleanTreat equipment approx. 09:10am up to 09:50am – access to lab included.
- Return to Security Shelter 09:55am to return PPE, assigned driver will show the way back to security entrance or drop off where appropriate
- Please note that the lab will not be operational and will be packed for transport
- Similarly Clean Treat will not be operational. Some of the piping will have been removed to allow easier access to sections of the deck.

Kind Regards

[Redacted]

[Redacted]

Animal Health Division
Tel: [Redacted]
Mob: [Redacted]



**Benchmark
Animal Health**

Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

From: [Redacted] @SEPA.org.uk>
Sent: 25 September 2019 11:53
To: [Redacted] @bmkanimalhealth.com>; [Redacted] @vmd.defra.gsi.gov.uk>
[Redacted] @gov.scot
Cc: [Redacted] @bmkanimalhealth.com>; [Redacted] @bmkanimalhealth.com>
Subject: RE: URGENT- Clean Treat visit opportunity

Morning [Redacted]

I can make 9am on Monday, I think it is important to flag a couple of points. We would expect to follow this up with a visit to the warehouse with relevant staff (our chemists), however having spoken to [Redacted] whilst a visit to the lab in a warehouse would be worthwhile it would obviously be much better to see the lab in situ on the vessel.

Given the above and the fact that [Redacted] can no longer make it, would it be possible to include [Redacted] on the visit? We understand that a chemist won't be available on the day, but still think [Redacted] seeing the lab in situ would be of benefit.

Thanks

[Redacted]

[Redacted]

Scottish Environment Protection Agency, Regulatory Services North, West Highland and Argyll Team, Kilbrandon House, Manse Brae, Lochgilphead, PA31 8QX
t: [Redacted] m: [Redacted] e: [Redacted] @sepa.org.uk web: www.sepa.org.uk

Documents [disclosed to Scottish Salmon Watch by the Scottish Government via FOI in November 2019 \(FOI-19-02442\)](#) reveal huge quantities of toxic chemicals ([Azamethiphos](#), [Deltamethrin](#) and [Hydrogen Peroxide](#)) discharged by well boats at salmon farms across Scotland in 2018. Here's thousands of litres of Hydrogen Peroxide ([recently shown by a scientific paper to kill kelp in the vicinity of salmon farms](#)) as well as Deltamethrin (AMX) and Azamethiphos (Salmosan) used by Grieg Seafood in Shetland [4]:

2018 Grieg Seafood Ltd						
<u>Site</u>	<u>MCMS No.</u>	<u>Date</u>	<u>Time</u>	<u>Duration</u>	<u>Product</u>	<u>Amount</u>
Swinning 3	06131	15/01/2018	09:30	20 Mins	Peroxide and AMX	9940L and 720ml
Swinning 3	06131	15/01/2018	15:00	20 Mins	Peroxide and AMX	9940L and 720ml
Swinning 3	06131	16/01/2018	09:20	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	16/01/2018	15:40	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	16/01/2018	17:30	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	18/01/2018	08:40	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	18/01/2018	13:25	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	19/01/2018	08:45	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	19/01/2018	14:00	20 Mins	Peroxide and AMX	9640L and 720ml
Settemess South	06121	23/01/2018	10:00	20 Mins	Salmosan	720g
Settemess South	06121	23/01/2018	16:30	20 Mins	Salmosan	720g
Settemess North	06122	18/01/2018	10:20	20 Mins	Salmosan	360g
Settemess North	06122	19/01/2018	09:00	20 Mins	Salmosan	180g
Settemess North	06122	20/01/2018	09:00	20 Mins	Salmosan	720g
Settemess North	06122	20/01/2018	14:40	20 Mins	Salmosan	720g
Settemess North	06122	21/01/2018	09:55	20 Mins	Salmosan	360g
Settemess North	06122	22/01/2018	10:20	20 Mins	Salmosan	720g
Settemess North	06122	22/01/2018	19:40	20 Mins	Salmosan	720g
Swinning 3	06131	14/05/2018	15:30	20 Mins	Peroxide and AMX	2921L and 200ml
Swinning 3	06131	15/05/2018	10:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	15/05/2018	13:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	15/05/2018	16:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	16/05/2018	12:00	20 Mins	Peroxide and AMX	5072L and 400ml
Swinning 3	06131	16/05/2018	16:00	20 Mins	Peroxide and AMX	5072L and 400ml
Swinning 3	06131	17/05/2018	10:00	20 Mins	Peroxide and AMX	4417L and 400ml
Swinning 3	06131	17/05/2018	15:30	20 Mins	Peroxide and AMX	4417L and 400ml
Settemess North	06122	18/05/2018	10:05	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	19/05/2018	09:25	20 Mins	Peroxide and Salmosan	10800L and 720g
Settemess North	06122	19/05/2018	15:40	20 Mins	Peroxide and Salmosan	10800L and 720g
Settemess North	06122	20/05/2018	10:00	20 Mins	Peroxide and Salmosan	8100L and 540g
Settemess North	06122	20/05/2018	15:30	20 Mins	Peroxide and Salmosan	8100L and 540g
Settemess North	06122	21/05/2018	19:00	20 Mins	Peroxide and Salmosan	5400L and 360g

And here's [data showing illegal use and toxic discharges by The Scottish Salmon Company at Vuia Beag in Loch Roag of Benchmark's Salmosan Vet \(Azamethiphos - a chemical shown by peer-reviewed science to be lethal to lobsters\)](#):

2018 The Scottish Salmon Company						
<u>Site</u>	<u>MCMS No.</u>	<u>Date</u>	<u>Time</u>	<u>Duration</u>	<u>Product</u>	<u>Amount</u>
Vuia Beag	No Licence	14/07/2018	09:34	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	15/07/2018	09:46	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	21/07/2018	09:46	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	22/07/2018	09:34	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	03/08/2018	12:00	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	04/08/2018	12:10	30 Mins	Salmosan Vet	200g
Vuia Beag	No Licence	05/08/2018	12:02	30 Mins	Salmosan Vet	200g
Taranaish	06397	03/10/2018	02:35	40 Mins	Azasure/AMX	400g and 400ml
Taranaish	06397	04/10/2018	03:20	40 Mins	Azasure/AMX	400g and 400ml
Taranaish	06397	04/10/2018	08:20	40 Mins	Azasure/AMX	400g and 400ml
Taranaish	06397	04/10/2018	18:50	40 Mins	Azasure/AMX	400g and 400ml
Procrapol	06199	15/06/2018	00:23	1 Hour	Salmosan	180g
Procrapol	06199	15/06/2018	20:38	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	01:25	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	23:25	1 Hour	Salmosan	180g
Procrapol	06199	21/06/2018	17:22	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	21:28	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	15:45	1 Hour	Salmosan	180g
Procrapol	06199	16/06/2018	08:05	1 Hour	Salmosan	180g
Procrapol	06199	09/06/2018	21:22	1 Hour	Salmosan	180g
Procrapol	06199	09/06/2018	12:36	1 Hour	Salmosan	180g
Procrapol	06199	08/12/2018	14:00	1 Hour	Azasure	100g
Procrapol	06199	08/12/2018	15:05	30 Mins	AMX	125ml
Procrapol	06199	08/12/2018	17:00	1 Hour	Azasure	100g
Procrapol	06199	08/12/2018	18:00	30 Mins	AMX	125ml
Procrapol	06199	08/12/2018	20:20	1 Hour	Azasure	100g
Procrapol	06199	09/12/2018	21:25	30 Mins	AMX	250ml

The unlawful use and discharge of Azamethiphos by [The Scottish Salmon Company](#) at Vuia Beag in Loch Roag ([Loch Roag Lagoons is an EU-protected Special Area of Conservation](#)) did not lead to a prosecution for breach of the [Marine \(Scotland\) Act 2010](#) or a fine of up to £50,000 or imprisonment for up to 2 years ([as stated in the legislation](#)) but merely [triggered an 'Advisory Letter' from Marine Scotland](#).

marine scotland



Scottish Government
Riaghaltas na h-Alba
gov.scot

E: ms.marinelicensing@gov.scot

[Redacted]

The Scottish Salmon Company
1 Smithy Lane
Lochgilphead
Argyll
PA31 8TA

Date: 21 September 2018

Dear [Redacted]

MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING – ADVISORY LETTER

I write to the Scottish Salmon Company on behalf of the Marine Scotland – Licensing Operations Team ("MS-LOT"). MS-LOT is responsible, on behalf of the Scottish Ministers, for licensing the deposit of any substance within the Scottish marine area, either in the sea or on or under the seabed from a vessel, under the Marine (Scotland) Act 2010 ("the Act").

Part 4, section 21, subsection (1) of the Act, states clearly what constitutes a licensable marine activity. Under Part 1, section 2 of the Act the sea includes any area submerged at mean high water spring tide or the water of every estuary, river or channel, so far as the tide flows at mean high water spring tide.

It has come to our attention that the Scottish Salmon Company have permitted the carrying on of a licensable marine activity, namely the deposit of chemicals used to treat sea lice, from a vessel, in the Scottish marine area at Vuia Beag.

The Scottish Salmon Company had a marine licence (licence no. 05198/14/0) for the discharge of used chemicals from wellboats at Vuia Beag but this expired on 24 July 2017. MS-LOT has no other record of either a current marine licence or marine licence application for the discharge of used chemicals from wellboats at this site.

Part 4, section 20, subsection (1) of the Act states that no person may carry on a licensable marine activity or cause or permit any other person to carry on such an activity. Part 4, section 39, subsection (1) of the Act states that a person who contravenes section 20 (1) or fails to comply with any condition of a marine licence commits an offence. Part 4, section 39, subsection (4) of the Act states that a person guilty of an offence under subsection (1) is liable on summary conviction, to a fine not exceeding £50,000, or on conviction on indictment, to a fine or to imprisonment for a period not exceeding 2 years, or to both.

Data for 2019 will not be publicly available until the first half of 2020 and is still to be published for 2018 via either [Scotland's Aquaculture web-site](#) or [SEPA's 'Scottish Pollutant Release Inventory'](#) making it impossible to calculate total chemical use in Scotland [5].

In November 2019, SEPA denied a FOI request ([F0191091](#)) concluding after a review in December 2019 that "SEPA considers that the release of the correspondence and documentation would cause substantial prejudice to the commercial undertaking and economic interest". "It was confirmed that details of the specified treatment were not publicly available and that they were commercial in nature," explained SEPA on 13 December 2019. "Feedback had been sought from the third party who confirmed that disclosure of information would cause substantial prejudice to their commercial interest" [6].

However, [SEPA's FOI refusal letter dated 11 November 2019](#) admitted that it had attended five meetings with Benchmark over the last year (9 October 2018; 11 April 2019; 30 May 2019; 20 September 2019 and 30 September 2019).

[6.] Please include any information relating to CleanTreat and the treatment of well boats discharges including details of any meetings and correspondence with Benchmark and other companies. Please include information relating to "high level talks to facilitate trials of the [CleanTreat] system in Scotland".

SEPA holds a small amount of correspondence. This information is excepted under Regulation 10(5)(f) of the EIRs. The text of which is reproduced below;

(5) A Scottish public authority may refuse a request to make environmental information available to the extent that its disclosure would, or would likely to prejudice substantially-

(f) the interests of the person who provided the information where that person-

(i) was not under, and could not have been put under, any legal obligation to supply the information;

(ii) did not supply it in circumstances such that it could, apart from these Regulations, be made available; and

(iii) has not consented to its disclosure

The release of the information in question would be likely to prejudice substantially the third party. The Public Interest Test was carried out in relation to the information to be withheld under Regulation 10(5)(f) of the EIRs. In this case, we recognise that Regulation 10(2)(b) requires SEPA to apply a presumption favour of disclosure. The public interest in favour of disclosure is outweighed by that in favour of withholding. Requests for such information are considered by SEPA on a case by case basis. In this case, it was determined that the public interest would not be served by the release of the information at this time.

We confirm that SEPA has attended meetings with Benchmark on 9 October 2018, 11 April 2019, 30 May 2019, 20 September 2019 and 30 September 2019

Fish Farmer [reported](#) in August 2019: "The team behind the Scottish invention CleanTreat, which won the much prized Aqua Nor Innovation Award this week, have held high level talks to facilitate trials of the system in Scotland" (reporting that Benchmark was "encouraged by discussions at Aqua Nor with [Fergus] Ewing and Graham Black, director of Marine Scotland").

Documents [disclosed to Scottish Salmon Watch by the Scottish Government via FOI in July 2019](#) reveal that Benchmark lobbied the Cabinet Secretary for Rural Economy (Fergus Ewing) in September 2018 [writing in an email](#) that "we are now ready to apply for trials in Scotland for our CleanTreat system for salmon health" and "would like to brief you on these proposals".

"The Cabinet Secretary is asked to note that MS-LOT [Marine Scotland Licensing Operations Team] continues discussions with BAHL [Benchmark Animal Health Limited] and is awaiting further information from the company and that the licensing regime and medicine use subgroup of the [Farmed Fish Health Framework](#) will look at the best ways of engagement with innovative technologies and new treatments at its next meeting" [stated a Cabinet Briefing marked 'Restricted - Advice to Ministers' in December 2018](#).

RESTRICTED - ADVICE TO MINISTERS

From: [Redacted]
Marine Scotland Licensing Operations Team (MS-LOT)
Marine Planning and Policy (MPP)
07 December 2018

Cabinet Secretary for Rural Economy

Purpose

1. To update the Cabinet Secretary on a meeting held with Scottish Environment Protection Agency (SEPA), Marine Scotland-Licensing Operations Team (MS-LOT), the Veterinary Medicines Directorate (VMD) and Benchmark Animal Health Ltd (BAHL) in relation to CleanTREAT [Redacted] and confirm that the advice on the regulatory framework has been given.

Priority

2. Routine.

Background

3. You recently met with BAHL to discuss the new sea lice treatment system "CleanTREAT" and chemical treatment [Redacted] and requested an update on recent discussions with regulators.
4. [Redacted]
5. [Redacted]

A [redacted email marked 'Sensitive' dated December 2018](#) referred to Fergus Ewing's meeting with Benchmark and "a discussion with Benchmark on the acceptability of their CleanTreat proposal where it might involve transport from site for remote discharge of effluent water" and "the work plan element where we're tasked at looking at 'discharge zones'".

From: [Redacted]
Sent: 06 December 2018 06:54
To: [Redacted]
Cc: [Redacted]
Subject: Re: sensitive: Medicines and Licensing - Workplan - October 2018 - DRAFT (not for circulation)

Hi [Redacted]

Thanks for sending this.

As you will have heard, Mr Ewing has met with benchmark which has brought some of the workplan aspects into sharp focus. [Redacted]

This is of relevance to both the discussion with benchmark on the acceptability of their CleanTreat proposal where it might involve transport from site for remote discharge of effluent water and, equally importantly, some of the aspects of the work plan element where we're tasked at looking at 'discharge zones'.

Can I ask you to consider with [Redacted] if these aspects are covered by the current ask of SGLD or if this needs to be added to the request. I have avoided raising this directly with SGLD as I'm aware of the request already in train and don't want to add to SGLD burden or confuse ownership of the request.

Regards

[Redacted]
Sent from my BlackBerry 10 smartphone.

An [email from the office of the Cabinet Secretary for Rural Economy dated December 2018](#) stated that "Mr Ewing is keen to find a way forward on both discharge and clean treats":

From: [Redacted] on behalf of Cabinet Secretary for the Rural Economy
Sent: 12 December 2018 11:46
To: [Redacted] Cabinet Secretary for the Rural Economy; Cabinet Secretary for the Environment, Climate Change and Land Reform; Minister for Rural Affairs and the Natural Environment
Cc: [Redacted]

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

██████████

Mr Ewing is keen to find a way forward on both discharge and clean treats.

Grateful if officials can keep us informed.

Many thanks,
██████████

[Redacted]

Cabinet Secretary for Rural Economy

CabsecRE@gov.scot

[Redacted]

An [undated Annex to documents marked 'Restricted - Advice to Ministers'](#) (understood to be a Highlands & Islands Enterprise 'Briefing Paper' for Fergus Ewing, the Cabinet Secretary for Rural Economy, dated 16 April 2019) referred to a meeting in March 2019 between Benchmark and the Scottish Government's 'Account Team' to explore "how Scotland can support BMK [Benchmark] to move to the next phase of CleanTreat":

Engagement

- Benchmark Holdings PLC is account managed. A 'Team Scotland' approach is taken with the group.
- [Redacted] SE, SDI and SAIC are also represented on the team. SEPA has been invited to join the 'team'. The development agencies have engagement across the group's various Scottish operations.
- In March 2019, [Redacted] gave a CleanTreat presentation to the Account Team to explore 'how Scotland can support BMK to move to the next phase of CleanTreat'. Key points arising from the meeting were:

- Scotland is the preferred next market, but dependent on the appropriate conditions and support;
 - Also in talks with Canada and Chile and they're working hard to secure CleanTreat;
 - BMK's decision on Scotland will be heavily dictated by the regulatory process and approach;
 - CleanTreat also presents opportunities for Scottish supply chain e.g. well-boat operators, engineering companies, academia, etc.;
 - Key technical challenges need to be addressed to enable continued development of CleanTreat;
- Talks are ongoing with BMK to explore HIE R&D support options for CleanTreat R&D developments. Initial project costs of [Redacted] cited. The Account Team are also working to connect [Redacted] with the relevant Scottish companies and engage with aquaculture policy discussions such as FFHF.

Other documents were heavily redacted with the Scottish Government [citing the "confidentiality of commercial or industrial information"](#) [7].

A [redacted email in May 2019](#) stated that "Benchmark folk expressed concern over the pace of approval in the margins of a recent aquaculture supply chain summit".

From: [Redacted]
Sent: 29 May 2019 08:43
To: [Redacted]
Subject: Benchmark CleanTreat

[Redacted] - hi. Left a couple of voicemails re the above. Looking for a quick update on progress please, since your submission in December, with intended trials of CleanTreat and associated use of the proposed new sea lice treatment.

Benchmark folk expressed concern over the pace of approval in the margins of a recent aquaculture supply chain summit and they have [Redacted], at their table tonight for the Aquaculture awards. I've no doubt the issue will be raised and am hoping to brief [Redacted] head of the game.

Grateful for early advice.

Thanks, [Redacted]

Sent with BlackBerry Work
 (www.blackberry.com)

The [FOI documents reveal that in April 2019](#), the Cabinet Secretary of Rural Economy (Fergus Ewing) met with "four key Scottish salmon producers":

The [FOI documents disclosed by the Scottish Government](#) detail heavily redacted minutes of a meeting with Benchmark in October 2018 with a document citing "field trials in Scotland".

CONFIDENTIAL

Use of [Redacted] [Redacted] Clean Treat in the UK- Final Meeting Minutes
[Redacted]

Meeting: 9th October 2018, 1-3.30pm, BAHL, Bush House, Edinburgh

[Redacted]

[Redacted]

**Benchmark Animal Health Limited
& Cleantreat, Effective Sea Lice Treatment with Proven Prevention of
Environmental Impact, for Field Trials in Scotland.**

An [email dated November 2018](#) referred to a request from Fergus Ewing (Cabinet Secretary for the Rural Economy) for information on CleanTreat stating that "the company wish to push forward with trials in Scotland (trials already happening in Norway) - and that Marine Harvest [redacted] as partner wants to get this off the ground as soon as possible.....progress with regulators was slow and that they wished to speed things up":

From: [Redacted]
Sent: 29 November 2018 10:02
To: [Redacted]
Cc: [Redacted]
Subject: Aquaculture - CleanTreat

Hi [Redacted]

1. I understand [Redacted] assed on Mr Ewing's request for details about outstanding CAR applications – grateful for an update please.
2. We have also had a request from Mr Ewing for information about the situation regarding the following:

"Mr Ewing would like advice from SEPA + MS LOT on the current progress of Benchmark's application for field trials of CleanTREAT + [Redacted] in Scotland. For those who are not aware of the system - CleanTREAT is a system which 'cleans' the sea lice treatment chemical (in this case a new product [Redacted]) from water before the water is discharged. <http://www.benchmarkplc.com/articles/cleantreat-by-benchmark/> .

[Redacted] outlined that the company wish to push forward with trials in Scotland (trials already happening in Norway) – and that Marine Harvest [Redacted] as partner wants to get this off the ground as soon as possible. It was claimed that neither SEPA nor MS LOT could confirm to the company who the regulatory lead on their application would be. [Redacted] said that progress with regulators was slow and that they wished to speed things up. Hence Mr Ewing's request for immediate advice."

Happy to discuss – by phone if appropriate

Thanks
[Redacted]
[Redacted]

A [redacted email in February 2019](#) from Marine Scotland referred to a meeting being arranged "with SEPA and policy officials". It stressed the need for further information on the permits required for Benchmark's trials in Norway and "more detail on the proposed activity in the marine area (i.e. - what is proposed to be deposited in the sea)".

From: [Redacted]
Sent: 08 February 2019 17:57
To: [Redacted]
Subject: RE: Benchmark - Cleantreat

Thanks for the discussion [Redacted]

I mentioned that we (MS-LOT) would arrange a meeting with SEPA and policy officials. I shall set this up in due course.

In order to better inform the process, we discussed the need for some further info namely:

1. The permits required in Norway for your trial there
2. More detail on the modelling you have carried out to date.
3. More detail on the proposed activity in the marine area (i.e.- what is proposed to be deposited in the sea?)
4. Sensitivity of the testing to LOD etc. to understand what the output might contain.

[Redacted]

I look forward to hearing from you and I shall look to set up a meeting soon.

Kindest regards
[Redacted]

A [redacted email from Benchmark in January 2019](#) asked: "I assume a brief outline of what we wish to do in Scotland would be helpful ahead of the call with SEPA?"

From: [Redacted]
Sent: 30 January 2019 16:10
To: [Redacted]
Subject: Re: Benchmark - Cleantreat

Hi [Redacted] – understood.

I assume a brief outline of what we wish to do in Scotland would be helpful ahead of the call with SEPA?

A call early-ish on the 7th – say at 9am - would work for me – I have updated the invite on Outlook.

Best regards,
[Redacted]

[Redacted]



Benchmark House, 8 Smithy Wood Drive, Sheffield, S35 1QN, UK
[Redacted]

WEB. www.benchmarkplc.com

A [redacted email dated June 2019](#) to Marine Scotland attached a 'Confidential' document titled 'CleanTreat [redacted] Trials, Scotland 2019 Overview' (authored it appears by Benchmark's Animal Health Division in Edinburgh).

[Redacted]

From: [Redacted]
Sent: 19 June 2019 12:45
To: MS LOT Business and Operational Delivery
Subject: FW: Benchmark - CleanTreat
Attachments: CleanTreat [redacted] Trials, Scotland 2019 Overview. CONFIDENTIAL.pdf
ed]

From: [Redacted]
Sent: 14 March 2019 13:25
To: [Redacted]
Cc: [Redacted]

[Redacted]

[Redacted]

Kind Regards

[Redacted]

Animal Health Division
[Redacted]



Bush House, Edinburgh Technopol, Edinburgh, EH26 0BB

Another [redacted email dated May 2019](#) marked "Commercially sensitive and strictly confidential" referred to a "white paper to assist in our request for legal advice":

From: [Redacted]
Sent: 09 May 2019 09:20
To: [Redacted]
Cc: [Redacted]
Subject: FW: Commercially sensitive and strictly confidential: Draft minutes for review and final minutes from meeting 1
Attachments: [Redacted]

Morning [Redacted]

Can you please review and get back to Benchmark?

I recall they mentioned a white paper to assist in our request for legal advice, this has not yet been received. It would augment the request already sitting with SGLD.

[Redacted] please feed any comments back to [Redacted]

Regards

[Redacted]

Another [redacted email dated May 2019](#) referred to Benchmark's "need to satisfy SEPA's concerns as part of any marine licence application prior to the handover of the licensing role to SEPA":

From: [Redacted] MARLAB)
Sent: 29 May 2019 11:42
To: [Redacted]
Subject: RE: Benchmark CleanTreat

Hi [Redacted],

Back in the office now!

We met with Benchmark a few weeks ago. SEPA and the VMD were also in attendance.

The position was that they would need to satisfy SEPA's concerns as part of any marine licence application prior to the handover of the licensing role to SEPA. After which it seems likely to be SEPA's process entirely. They do seem to be in discussion with SEPA still. [Redacted]

[Redacted] As part of the meeting, Benchmark advised they would draft a 'white paper' to help explain what their plans were [Redacted]. This has not yet been received and we will be writing to benchmark, finalising the meeting minutes and reminding them of their offer of the white paper, probably today.

Hope this helps,

[Redacted]
[Redacted]

A [redacted email from SEPA in April 2019](#) asked for "a visit to the existing vessel whilst operational" which would allow SEPA "to highlight any areas of concern early so that they could potentially be addressed/mitigated as part of the design process".

From: [Redacted]
Sent: 23 April 2019 14:49
To: [Redacted]

Cc: [Redacted]
Subject: RE: Meeting - Thursday 11 April 2019 1430 - 1630h

Hi [Redacted]

Thanks for your time a couple of weeks ago. On reflection given your proposals are likely to involve commissioning a new or repurposing an existing vessel, it is important that we have the opportunity to feed in to or comment on any designs (particularly in reference to any potential process controls). As raised at the meeting our current understanding of the treatment and transfer process of your operations in Norway is fairly limited, for us to provide appropriate input we really need to have a clear understanding of the existing process. I think a visit to the existing vessel whilst operational would really help us develop that understanding. This would then allow us to highlight any areas of concern early so that they could potentially be addressed/mitigated as part of the design process.

I know there was an action from the meeting, but it would be good to know if that is going to be possible and if so, when and what limit there might be in numbers?

Kind regards

[Redacted]

Scottish Environment Protection Agency, Regulatory Services North, West Highland and Argyll Team, Kilbrandon House, Manse Brae, Lochgilphead, PA31 8QX
[Redacted]

web: www.sepa.org.uk

Benchmark [replied in April 2019](#) that "we are re-starting trials next week":

From: [Redacted]
Sent: 26 April 2019 18:50
To: [Redacted]
Cc: [Redacted]
Subject: RE: Meeting - Thursday 11 April 2019 1430 - 1630h

Hi [Redacted]

Yes it will definitely be possible to visit the boat. We are re-starting trials next week and are looking at possible dates for your visit. The dates are not yet fixed as it depends on the farms and the weather. It is looking likely that a date in the week of the 20th May might work but this is not yet confirmed. I will let you know definite dates as soon as I have them but they may be at quiet short notice unfortunately. I am currently looking into maximum numbers and will get back to you asap. I am hoping we can accommodate 2 people each from SEPA, MS and VMD but I need to confirm this. We will be limited by safety issues etc.

Kind Regards

[Redacted]

Animal Health Division
Tel: [Redacted]
[Redacted]



**Benchmark
Animal Health**

Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

From: [Redacted]
Sent: 06 December 2018 09:00
To: [Redacted]
Cc: [Redacted]
Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

■

Many thanks for sharing.

I agree it would be worth referencing both the report and the focus on medicine use (see below) but also that the REC report said 'The Committee recognises the need to ensure that the licensing regime for medicines is fit for purpose and sufficiently robust to prevent environmental damage or impact on other species. It notes and welcomes the Fish Health Framework workstream which is dedicated to the licensing of fish treatment.'

RECOMMENDATION 32 The publication of this research leaves the Committee in no doubt that effective regulation of medicine used by the farmed salmon industry is a requirement. In this regard, it welcomes the action by SEPA to the UK Technical Advisory Group (UK TAG) to make recommendations to the Scottish Government on new environmental standards for Emamectin Benzoate. It also calls on SEPA and the Scottish Government to similarly consider the environmental impact of other medicines by the industry. (see paragraph 293)

For now the key issue is around the text at your para 8 and I have offered a few suggested changes below.

'Legislative Framework – BAHF raised with the Cabinet Secretary that they were unclear of applicable legislation following the call. However the position for now is very clear. MS has been the licensing authority for wellboat discharges for the last 8 years. However, and as the Cabinet Secretary will be aware from the discussions at the Aquaculture Industry Leadership Group, Marine Scotland have been actively looking at moving forward on the recommendation from the 2016 'Independent review of Aquaculture Consents', which looked at the licensing role for wellboat discharge moving to SEPA. That recommendation has raised some challenges but is still under active consideration and we are hopeful close to a conclusion. The legislative framework has subsequently been clarified to BAHF by MS and an offer has been made to further discuss if they are not clear.'

I am not sure of the wider benefits of a presentation to the sub group and what expectations that might bring with it, but that is just an observation.

I suggest you address to both Cab Secs.

Regards

A [redacted email dated December 2018](#) reports that Benchmark is aware that "discharges from wellboats need marine licences" (currently issued by Marine Scotland but soon to be moved to SEPA).

From: [Redacted]
Sent: 05 December 2018 14:48
To: [Redacted]
Cc: [Redacted]

1

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

■

I have begun to draft something and have had a brief discussion with [Redacted] at SEPA.

We understand that benchmark is in discussions with the VMD.

I have gone back to benchmark to clarify that discharges from wellboats need marine licences currently, and that this might change in the future to CAR. [Redacted]

[Redacted]

■

FOI documents [disclosed by the Scottish Government in April 2018](#) included an [email dated December 2017](#) from the Scottish Aquaculture Innovation Centre describing Ectosan as a "follow on product to Salmosan" speculating that it could also be Azamethiphos-based.

From: [Redacted]
Sent: 13 December 2017 14:01
To: [Redacted]
Cc: [Redacted]
Subject: RE: Ectosan sea lice treatment

Hi [Redacted]

Thanks for the Ectosan press release.

I note that Benchmark describe Ectosan as a follow on product to Salmosan. There's no publicly available on active ingredients, but I wonder if it's also azamethiphos-based, with the associated regulatory controls and need to avoid sea lice resistance, etc?

Regarding CleanTreat, this water purification system was presented at a SSPO meeting last week – again, no details provided on how the tech works, which made some of the audience a bit sceptical. Interestingly, it was mentioned that the shipping container-based modules would need to be multiplied up to enable treatment of commercial scale water volumes. As I understood things, this would in turn need a secondary vessel alongside the well boat. Finally, it was mentioned that initial discussion have been had with SEPA, but no indication as to how advanced these are.

I hope this is of some help!

Best regards,
[Redacted]

[Redacted]
[Redacted]
Scottish Aquaculture Innovation Centre
(t) [Redacted] (m) [Redacted] (w) scottishaquaculture.com [Connect+Collaborate](#)

A [redacted email dated December 2017 from the Scottish Government](#) suggested that Benchmark's 'Ectosan' sea lice treatment "on face value could be a significant game-changer".

From: [Redacted] [@gov.scot](mailto:)
Sent: 13 December 2017 11:13
To: [Redacted] [@scottishaquaculture.com](mailto:)>
Cc: [Redacted] [@gov.scot](mailto:)
Subject: Ectosan sea lice treatment

Morning [Redacted]

I am sure you are already aware of the article <https://www.fishfarmingexpert.com/news/new-lice-bath-100-effective-and-pollution-free/> but I wondered if you had any further readout around this particular innovation which on face value could be a significant game-changer. As I recall, Benchmark are an industry member of SAIC.

Regards

[Redacted]

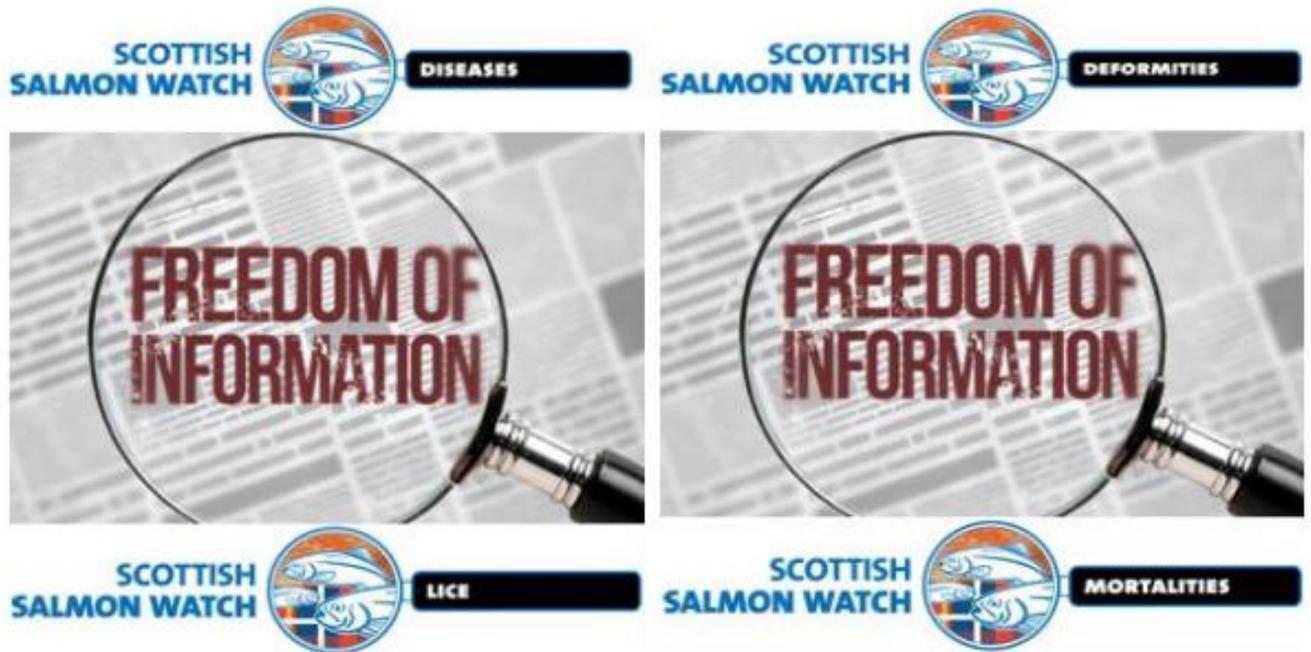
[Redacted]

[Marine Scotland](#)

Scottish Government | Area 1-B North | Victoria Quay | EH6 6QQ

T: [Redacted]
[Redacted]

In December 2019, Scottish Salmon Watch filed further FOIs for information on CleanTreat, BMK08 and Ectosan with the Scottish Government, SEPA, the Veterinary Medicines Directorate and Scottish Natural Heritage.



Scottish Natural Heritage claimed on 19 December 2019 to possess no information on BMK08 or Ectosan [8].

On 19 December 2019, Scottish Salmon Watch asked SEPA to re-consider their blanket refusal to provide information on CleanTreat [9].

On 19 December 2019, the Scottish Government refused a FOI request by Scottish Salmon Watch claiming they had no information on BMK08 and could not disclose information on Ectosan "because disclosure of this particular information would, or likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests" [10].

A [FOI reply from the Veterinary Medicines Directorate in January 2018](#) claimed to have no information on CleanTreat or Ectosan. A further FOI request was refused in December 2019. "We fully recognise and respect the obligations imposed by the FOIA on the VMD to act in a manner that is transparent and open in the public interest," wrote the VMD in a letter dated 20 December 2019. "However, the very real harm likely to ensue from the disclosure of the information you request warrants the balance to be taken in favour of non-disclosure" [11].

"We consider that the disclosure of the information would be likely to prejudice the commercial interests of Marketing Authorisation holders and that Section 43 applies here," continued the VMD. "Through the marketing authorisation system, the VMD receives information from commercial entities that constitutes trade secrets and information protected by patent, the publication of which would create significant commercial harm to the manufacturer. The commercial entities are required by law to provide the information and are put to great expense to generate it. In this case, the information you request could be used by other manufacturers to formulate, develop or market products that would compete with these

products. We consider such factors weigh against the public interest in disclosing the information in question."

"We also judge that Section 41 of the FOIA applies to this request. Section 41 is an absolute exemption and it is engaged in this case because the information carries the necessary quality of confidence. In this instance publishing such information could undermine the veterinary pharmaceuticals industry's trust in the regulatory process as well as the companies' commercial position. This could lead to companies becoming unwilling to place product on the UK market, which would have a detrimental impact on animal welfare. Further, the market as a whole benefits from establishing and upholding a robust process for marketing authorisations; this in turn requires appropriate protection of confidentiality, and the honouring of expectations of confidentiality."



Notes to Editors:

[1] Undercurrent News [reported](#) (2 December 2019):



The screenshot shows the top portion of a news article on the Undercurrent News website. The header features the site's logo, 'undercurrentnews', with the tagline 'seafood business news from beneath the surface'. Navigation links for 'HOME', 'PRICES', 'SPECIES', 'COMPANIES', 'DOWNSTREAM', 'UPSTREAM', 'BLOGS', 'JOBS', and 'REPORTS' are visible. The article is categorized under 'WHITEFISH', 'R&D', and 'AQUATECH'. The main headline reads: 'Benchmark: 'Breakthrough' salmon lice treatment combo could be available by end of 2020'. The author is identified as Dan Gibson, with a publication date of Dec 2, 2019, at 10:17 GMT. Below the text is a photograph of the CleanTreat system, showing two large white cylindrical tanks with blue piping and valves. Two workers in safety gear are visible on a metal walkway between the tanks. The tanks are labeled 'CleanTreat by Benchmark'. A caption below the image states: 'Benchmarks CleanTreat system won the aquaculture innovation award at AquaNor 2019, and is set for commercial release next year. Credit: Benchmark Holdings'.

undercurrentnews
seafood business news from beneath the surface

HOME , PRICES , SPECIES , COMPANIES , DOWNSTREAM , UPSTREAM , BLOGS , JOBS , REPORTS

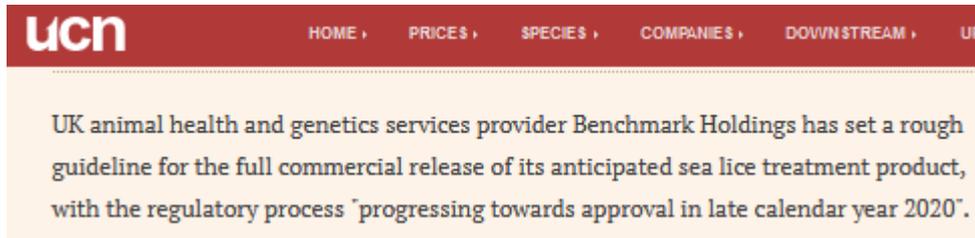
WHITEFISH R&D AQUATECH

Benchmark: 'Breakthrough' salmon lice treatment combo could be available by end of 2020

By [Dan Gibson](#) Dec 2, 2019 10:17 GMT



Benchmarks CleanTreat system won the aquaculture innovation award at AquaNor 2019, and is set for commercial release next year. Credit: Benchmark Holdings



The screenshot shows the top portion of a news article on the Undercurrent News website. The header features the site's logo, 'ucn', with the tagline 'seafood business news from beneath the surface'. Navigation links for 'HOME', 'PRICES', 'SPECIES', 'COMPANIES', 'DOWNSTREAM', and 'UPSTREAM' are visible. The article text reads: 'UK animal health and genetics services provider Benchmark Holdings has set a rough guideline for the full commercial release of its anticipated sea lice treatment product, with the regulatory process 'progressing towards approval in late calendar year 2020'.

ucn
seafood business news from beneath the surface

HOME , PRICES , SPECIES , COMPANIES , DOWNSTREAM , UPSTREAM

UK animal health and genetics services provider Benchmark Holdings has set a rough guideline for the full commercial release of its anticipated sea lice treatment product, with the regulatory process 'progressing towards approval in late calendar year 2020'.

The product candidate, named BMK08, has continued to show around 99% effectiveness as well as "excellent animal welfare and environmental credentials" in tests, Benchmark said in its Q4 financial update.

"There is increasing recognition in the industry of the breakthrough nature of our solution and growing interest from customers while the regulatory approval process is progressing according to plan," the firm said.

Nevertheless, revenues from commercial-scale field trials were lower than in 2018, as the program of

trials for BMK08 draws to a close.

Meanwhile, the company's CleanTreat system, which won the Aquaculture Innovation award at [AquaNor 2019](#), is also planned to move from trial mode to full commercial release next year.

CleanTreat, a water purification system, removes organic material and medicines from salmon treatment water before releasing the water back to the sea. In this way, Benchmark hopes it can remove treatment-resistant sea lice from farms, preventing them from spreading and building resistance among other lice.

"During the year the group made good progress towards the launch of product candidate BMK08 which, together with its co-dependant technology CleanTreat, has the potential to be transformational for the industry, delivering a solution with zero environmental impact to one of the industry's biggest challenges," said executive chairman Peter George in the firm's update.

"The company is considering the optimal strategy to take CleanTreat from trial to commercial-scale given its importance to product candidate BMK08 and its broader industry-wide applications," George added, "including alternative funding strategies with support from its major shareholders".

In Chile this year Benchmark claims to have seen increased sales of its existing sea lice treatment, Salmosan, which it said is indicative of the potential demand for BMK08.

[Benchmark's 'Trading Update'](#) (29 November 2019) included:



2020 PRIORITIES

- 1. Disposals, exits and cost reductions**
 - fundamental to execution of product development programme and support of continuing operations while maintaining adequate liquidity
- 2. Continued execution of strategy in core businesses**
 - Genetics: Salten ramp-up, local production in Chile, SPR shrimp
 - Advanced Nutrition: focus on high margin diets and health products including probiotics
- 3. Commercial readiness for product candidate BMK 08 (next generation sea lice treatment)**
 - focus on scaling CleanTreat® and achieving regulatory approval



BMK 08 - A TRANSFORMATIONAL SOLUTION TO ONE OF THE BIGGEST INDUSTRY CHALLENGES

Sea lice treatment and prevention
£2-3bn
+ reputation & production loss

No treatment in the market is fully efficacious



- Extensive programme of trials over 24 months
 - Significant efficiency improvements achieved
 - Demonstrable growing interest from customers
- Regulatory approval progressing; expected late 2020 CY
- Preparing commercial launch



CLEANTREAT® - TRANSFORMING THE SUSTAINABILITY LANDSCAPE FOR MEDICINAL TREATMENTS IN AQUACULTURE

- Winner of the 2019 Aquaculture Innovation Award
- Addresses environmental contamination; one of most pressing societal concerns in sustainability
- Broad application for current and future medicinal treatments in the industry
- Proven - removed medicines and other pollutants in large scale trials - 300,000+ m3 water treated
- Now defining optimal strategy for commercial scale-up



Benchmark's [2018 Annual Report filed with Companies House in April 2019](#) included:



This year we made significant progress towards the commercialisation of our next generation sea lice treatment and CleanTreat®. Our new solution addresses the biggest challenge in salmon farming and represents a transformational change towards a future where no medicinal residues are discharged directly into the oceans.

John Marshall
Head of Animal Health

Successful field trials for next generation sea lice treatment

- Conducted commercial field trials with three of the world's largest salmon producers showing close to 99%+ efficacy, excellent fish welfare and no environmental impact.
- Breakthrough product for single largest reported issue in salmon production.
- Expanding trials into new markets in 2019; process to obtain marketing authorisation progressing as planned.

Environmental protection — continued optimisation of CleanTreat® technology

- Benchmark's CleanTreat® technology addresses industry-wide need to eliminate discharge of medicinal residues from bath treatments into the water.
- Core element of the Group's next generation sea lice treatment with potential to expand use to other medicinal treatments.
- Efficiency of the system has increased significantly during 2018, doubling throughput.

Fish Farming Expert [reported](#) in October 2018:

fishfarmingexpert 

Two-year wait for 'next generation' lice treatment

A new lice treatment developed by UK-based aquaculture genetics, health and nutrition company Benchmark is unlikely to be available before the end of 2020 or early 2021.

By [Daniella Balin](#)

Ectosan has proven to be 100% effective in commercial trials in Norway, but Benchmark has warned it will take time to secure the patents or authorisations for it. It is waiting to complete regulatory procedures.

The chemical, which Benchmark describes as its "next generation" lice treatment, is used on wellboats in conjunction with the company's CleanTreat filtration system, which removes any detectable trace of medication from the treatment water before it is discharged into the sea, generating zero impact.

New molecule

Benchmark chief executive Malcolm Pye, visiting Chile for the Aquasur trade show, told Fish Farming Expert's Chilean sister site, Salmonexpert.cl, that Ectosan is a product that includes a new molecule and innovative technology.

Pye said Benchmark is in the process of patenting Ectosan in Norway and globally. "We still have work to do regarding patents and authorisations," he explained.

A clean break

- CleanTreat was developed by Benchmark Animal Health at its Ardtoe Marine Laboratory in Scotland.
- It uses a unique purification system to compound and solidify the chemicals used in bath treatments. These solids can then be incinerated at a specialist processing plant.
- So far CleanTreat has been trialled with a number of sea lice treatments compounds including pyrethroids, deltamethrin, azamethiphos, as well as Ectosan.

The CleanTreat system, which is available now, cannot be used with hydrogen peroxide but is suitable for all other currently available bath treatments used against sea lice, as well as several additional chemical classes.

According to Benchmark, the system is working well in field trials and will be available imminently for use with other chemicals. Benchmark is continuing to optimise its performance in terms of speed and efficiency.

Pye continued: "Our intention is that there will be no impacts on the sea after performing antiparasitic treatments on the fish.

"This is a step that the industry has wanted to take some time, to move away from carrying out treatments and discharging water containing antiparasitic products in the open sea."

Benchmark's [submission to the Scottish Parliament's salmon farming inquiry in 2018](#) included:

Purification systems- systems which remove therapeutants from treatment water prior to discharge - have been proposed as a solution to this environmental challenge. Benchmark's CleanTreat® system - developed by our team in Scotland - is the culmination of many years of research and investment and is the first of its kind to be used in aquaculture.

CleanTreat® ensures the safe use of compounds in the marine environment by removing therapeutants in discharge water following treatment to undetectable levels. CleanTreat® will be used in conjunction with Benchmark's next generation sea lice treatment, which is currently undergoing field trials in Norway. This represents a transformational change in the battle against one of the industry's greatest challenges, and a big step towards a future where no medicinal residues are discharged directly into the oceans. CleanTreat® can be used on well boats, tankers and platforms, is effective against most available bath treatments for sea lice and prevents treated lice from going back into the environment so that they do not contribute to resistance. More information can be found here:

<http://www.benchmarkplc.com/articles/cleantreat-by-benchmark/>

The Fish Site [reported](#) in March 2018:

Innovative treatment system gets an upgrade



by Rob Fletcher
22 March 2018, at 12:00pm

A new vessel which has been modified and fitted with an increased capacity for the use of Benchmark's CleanTreat system set sail for Norway from Scotland this week.



It's the second vessel to be fitted with the pioneering system, which allows a range of chemical bath treatments to be used to treat farmed fish infected with ectoparasites such as sea lice without any chemical residues being discharged into the water. And the new vessel has capacity up to 1200m³ per hour, allowing it to clean the water used for treatments in a 3000m³ wellboat in under three hours, a marked improvement on the speed of the previous CleanTreat vessel.



John Marshall, head of Benchmark Animal Health, which developed the system at their Ardtoe Marine Laboratory, explained the latest updates at this week's [Fish Vet Society conference](#), near Edinburgh.

CleanTreat is, he explained, "suitable for all currently available bath treatments used against sea lice, other than hydrogen peroxide" and uses a unique purification system to compound and solidify the chemicals used in the treatments. These solids, he added, can then be incinerated at one of the world's three specialist processing plants for these operations.

It has, so far, been trialled with a number of sea lice treatments compounds including pyrethroids, deltamethrin, azamethiphos, and Benchmark's new trial bath treatment.

However, he also believes that – as the treatment water is processed through CleanTreat's unique triple purification system before being released back into the sea clean and free of medicinal residues – the system could open up a very wide range of treatment options.

"There are at least two new products it could bring to market and I think it could open the door to other products not yet considered – perhaps from other areas, depending on regulations," he said.

Fish Farming Expert [reported](#) in December 2017:

New lice bath '100% effective' and pollution-free

Aquaculture health, nutrition, and genetics business Benchmark has announced that a new bath treatment has proved 100% effective against sea lice in commercial trials in Norway.

By [Gareth Moore](#)

The treatment, Ectosan, which has been developed by the UK-based company, was delivered through the company's CleanTreat filtering system - which removes any detectable traces of medicine from treatment water before it is discharged into the sea - meaning that the treatments had no environmental impact.

Benchmark believes that Ectosan can eventually achieve worldwide sales of £40-50 million annually. It will continue field trials in key markets through 2018 and 2019.

Transformational change

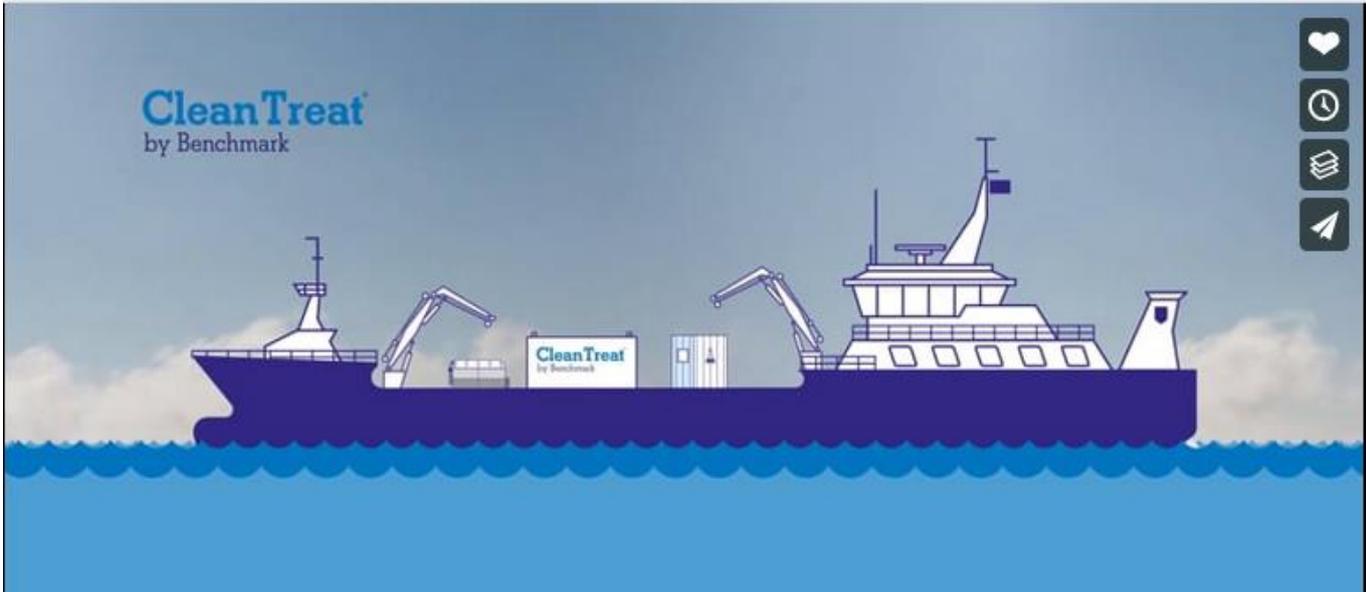
Chief executive Malcolm Pye said: "This is major breakthrough for Benchmark and the salmon industry. The combination of our next generation sea lice treatment, together with CleanTreat represents a transformational change in the battle against one of the industry's greatest challenges, and a big step towards a future where no medicinal residues are discharged directly into the oceans.

"Given its significance to the industry and interest expressed by our customers, we expect to see substantial demand for the treatment and look forward to providing the treatment more widely upon regulatory approval."

Benchmark would not comment further on Ectosan or how it works.

The company launched CleanTreat at Aqua Nor in Trondheim in August. A Benchmark spokesperson said: "CleanTreat can also be used with other bath treatments. Essentially CleanTreat could transform the salmon industry in terms of reducing environmental impact. There isn't another system like it, it's the first of its kind."

CleanTreat
by Benchmark



The CleanTreat purification system can be installed on the wellboat itself, tankers, platforms or on land. The portability and scalability of the system allows flexibility for the farm to deal with any volume of treatment water or biomass of salmon.

07:49

▶ [Progress Bar] [Signal] [Settings] [Full Screen]

This video frame shows a stylized illustration of a ship with two 'CleanTreat by Benchmark' purification units mounted on its deck. The ship is dark blue with white superstructure. The background is a light blue sky with white clouds. On the right side, there is a vertical toolbar with icons for heart, clock, list, and arrow.

CleanTreat
by Benchmark



PREVENTING ENVIRONMENTAL IMPACT FROM THE MEDICINE

00:48

▶ [Progress Bar] [Signal] [Settings] [Full Screen]

This video frame shows a photograph of two workers in blue and yellow safety gear walking on a metal staircase on a ship's deck. The deck is filled with large white cylindrical 'CleanTreat by Benchmark' purification units. A small icon of a tree and water is visible in the upper right. The text 'PREVENTING ENVIRONMENTAL IMPACT FROM THE MEDICINE' is overlaid in large white letters. A vertical toolbar with icons for heart, clock, list, and arrow is on the right. A progress bar at the bottom shows the video is at 00:48.

Benchmark's [largest shareholders are listed \(as of 29 October 2019\) as:](#)

Significant Shareholders as notified to the Company

SIGNIFICANT SHAREHOLDERS	% OF ISSUED SHARE CAPITAL
FERD AS	25.98
Kverva Finans AS	14.14
Lansdowne Partners	9.23
JNE Partners LLP	6.91
The Royal Bank of Scotland Group plc	5.80
Harwood Capital	4.13

Shareholders		
Name	Equities	%
Ferd Invest AS	144,951,523	25.9%
Gustav Witzøe	79,015,188	14.1%
Lansdowne Partners (UK) LLP	55,081,579	9.86%
MSD Partners Europe LLP	38,613,000	6.91%
RBS Collective Investment Funds Ltd.	38,133,401	6.83%
Woodford Investment Management Ltd.	27,853,491	4.99%
Harwood Capital LLP	23,136,493	4.14%
Malcolm David Foster Pye	15,145,686	2.71%
Roland James Bonney	15,145,686	2.71%
Hargreave Hale Ltd.	14,425,000	2.58%

Share capital and substantial shareholdings

The Company's issued share capital, together with details of movements during the year, are shown in Note 25 accompanying the financial statements. The Company has one class of ordinary share which carries no right to fixed income. Each ordinary share carries the right to one vote at general meetings of the Company.

As at 23 January 2019 the Company has been notified of the following substantial shareholdings under Rule 5 of the UKLA's Disclosure and Transparency Rules:

	% of issued share capital
FERD AS	26.00
Invesco Limited	16.17
Woodford Investment Management Limited	12.45
Lansdowne Partners International Limited, Lansdowne Partners Limited and Lansdowne Partners (UK) LLP	9.88
The Royal Bank of Scotland Group plc (Herge Holding B.V.)	6.84
Harwood Capital LLP (as investment adviser/manager), Oryx International Growth Fund Limited, North Atlantic Smaller Companies Investment Trust PLC, and Harwood Capital LLP for private clients	4.15

Benchmark [manufactures the Azamethiphos chemical treatment Salmonsan Vet](#). In 2018, Benchmark's claims that Neptune Pharma executives exploited trade secrets involving Salmonsan were [rejected by the Norwegian Court of Appeal with Benchmark ordered to pay NOK 1.6 million](#).

In December 2018, StofnFiskur ([owned by Benchmark](#)) was [linked with the spread of Piscine Orthoreovirus \(PRV\) to the United States via infected eggs](#). In June 2019, [Scottish Salmon Watch revealed that over 50% of farmed salmon sampled by Marine Scotland Science tested positive for PRV](#).

[2] Read are recent scientific paper via "[Effects of pharmaceuticals used to treat salmon lice on non-target species: Evidence from a systematic review](#)"

Read more background via:

[Media Backgrounder: Chemically Embalmed Scottish Salmon](#)

[Scientific Backgrounder: Ecotoxicity & Chemical Resistance](#)

[Media Backgrounder: Scotland's 'Silent Spring' of the Sea](#)

[3] On 19 December 2019, the Scottish Government [disclosed information on CleanTreat via FOI-19-02443](#):



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Fol_19_02443

from Kate Webb (Scottish Government) via [Dropbox Business](#)

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A letter dated 19 December 2019 explained:

Response to your request

I am providing a copy of some of the information you requested. Due to the large number of documents I have attached the following link which gives you access to view and download the requested files:

<https://www.dropbox.com/sh/bvaqinxu5zcgxf1/AAD4OtLePPIX97e1LPWHaAL9a?dl=0>

The link goes to the Scottish Government Dropbox area, a place to share large and/or numerous files. To access the documents via Dropbox use the above link and click a document to view it in your browser.

While our aim is to provide information whenever possible, in this instance we are unable to provide some of the information you have requested because exceptions under regulations 10(4) (e) (the request involves making available internal communications), 10(5) (e) (confidentiality of commercial or industrial information), 10(5) (f) (the interest of the person who provided the information) and 11(2) (personal information of a third party) of the EIRs applies to that information. The reasons why these exceptions apply is explained in the Annex to this letter.

ANNEX

REASONS FOR NOT PROVIDING INFORMATION

Exceptions that apply

Exceptions under regulations 10(4) (e) (the request involves making available internal communications), 10(5) (e) (confidentiality of commercial or industrial information), 10(5) (f) (the interest of the person who provided the information) and 11(2) (personal information of a third party) of the EIRs apply to some of the information you have requested.

Regulation 10(4) (e) – the request involves making available internal communications

An exception under regulation 10(4) (e) (the request involves making available internal communications) of the EIRs applies to some of the information you have requested because it is internal legal advice and disclosure would breach legal professional privilege.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We do recognise that there is a public interest in disclosing information as part of open, transparent and accountable government, and to inform public debate. However, this is outweighed by the strong public interest in maintaining the right to confidentiality of communications between legal advisers and clients, to ensure that Ministers and officials are able to receive legal advice in confidence, like any other public or private organisation.

Regulation 10(5) (e) – the confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest

An exception under regulation 10(5) (e) (confidentiality of commercial or industrial information) of the EIRs applies to some of the information you have requested. This exception applies because disclosure of this particular information would, or would likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We recognise that there is a public interest in disclosing information as part of open and transparent and accountable government, and to inform public debate. However, there is a greater public interest in protecting the commercial interests of companies when substantial harm can be made to their commercial interests.

Regulation 10(5) (f) – the interests of the person who provided the information

An exception under regulation 10(5)(f) of the EIRs (substantial prejudice to interests of person who provided the information) applies to some of the information you have requested. This exception applies because disclosure of this particular information would, or would be likely to, prejudice substantially the interests of Benchmark Holdings plc who provided that information to the Scottish Government. They:

- were not under any legal obligation to give us that information;
- did not supply it in circumstances in which it could, apart from the EIRs, be made available; and
- have not consented to disclosure.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We recognise that there is a public interest in disclosing information as part of open and transparent government. However, there is a greater public interest in protecting the interests of anyone, such as Benchmark Holdings plc who provides the Scottish Government with information on a confidential basis. Disclosing such information against the express wishes of the stakeholder is likely to undermine their trust in the Government and make them reluctant in future to share information with us on issues such as fish health. This would significantly impair the Scottish Government's ability to develop policies and make decisions on the basis of fully informed advice and evidence. This would not be in the public interest.

Regulation 11(2) – To the extent that environmental information requested includes personal data of which the applicant is not the data subject and in relation to which either the first or second condition set out in paragraphs (3) and (4) is satisfied, a Scottish public authority shall not make the personal data available.

An exception under regulation 11(2) of the EISRs (personal information of a third party) applies to some of the information requested because it is personal data of a third party and disclosing it would contravene the data protection principles in Article 5(1) of the General Data Protection Regulation and in section 34(1) of the Data

Protection Act 2018. This exception is not subject to the 'public interest test', so we are not required to consider if the public interest in disclosing the information outweighs the public interest in applying the exception.

The FOI reply ([FOI-19-02443](#)) was [posted online on 20 December 2019](#):

Benchmark PLC correspondence - trials of CleanTreat system in Scotland: EIR release

Published: **20 Dec 2019**

Directorate: [Marine Scotland Directorate](#)

Part of: [Marine and fisheries](#), [Public sector](#)

Information request and response under the Environmental Information (Scotland) Regulations 2004.

FOI reference: FOI/19/02443
Date received: 23 Oct 2019
Date responded: 19 Dec 2019

Information requested

"Please include any new information relating to CleanTreat and the treatment of well boats discharges including details of any meetings and correspondence with Benchmark and other companies. Please include information relating to "high level talks to facilitate trials of the [CleanTreat] system in Scotland".

Response

I am providing a copy of some of the information you requested. Due to the large number of documents I have attached the following link which gives you access to view and download the requested files: <https://www.dropbox.com/sh/bvaqinxu5zcgxf1/AAD40tLePPIX97e1LPWHaAL9a?dl=0> 

The link goes to the Scottish Government Dropbox area, a place to share large and/or numerous files. To access the documents via Dropbox use the above link and click a document to view it in your browser.

[4] In November 2019, the Scottish Government [disclosed information on the discharge of toxic chemicals via salmon farming well boats during 2018](#) (2019 data should be available in the first half of 2020):

[Home](#) > [Publications](#) >

PUBLICATION - FOI/EIR RELEASE

Discharge of salmon farming well boats: EIR release

Published: **19 Nov 2019**

Part of: [Marine and fisheries](#), [Public sector](#)

Information request and response under the Environmental Information (Scotland) Regulations 2004

FOI reference: FOI/19/02442

Date received: 23 Oct 2019

Date responded: 18 Nov 2019

Data was [made available to Scottish Salmon Watch 85 PDF documents via Dropbox](#):

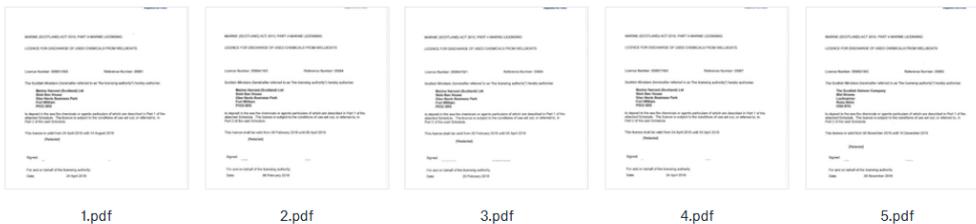


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FOI_19_02442

from Katie Macdonald menzies (Scottish Government) via [Dropbox Business](#)

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Documents included details of toxic chemicals used by salmon farming well boats in 2018 - including [The Scottish Salmon Company's salmon farm at Vuia Beag with 'No Licence' for the use of Salmonosan Vet \(Azamethiphos\)](#):

2018 The Scottish Salmon Company						
Site	MCMS No.	Date	Time	Duration	Product	Amount
Vuila Beag	No Licence	14/07/2018	09:34	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	15/07/2018	09:46	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	21/07/2018	09:46	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	22/07/2018	09:34	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	03/08/2018	12:00	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	04/08/2018	12:10	30 Mins	Salmosan Vet	200g
Vuila Beag	No Licence	05/08/2018	12:02	30 Mins	Salmosan Vet	200g
Taranaisih	06397	03/10/2018	02:35	40 Mins	Azasure/AMX	400g and 400ml
Taranaisih	06397	04/10/2018	03:20	40 Mins	Azasure/AMX	400g and 400ml
Taranaisih	06397	04/10/2018	08:20	40 Mins	Azasure/AMX	400g and 400ml
Taranaisih	06397	04/10/2018	18:50	40 Mins	Azasure/AMX	400g and 400ml
Procrapol	06199	15/06/2018	00:23	1 Hour	Salmosan	180g
Procrapol	06199	15/06/2018	20:38	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	01:25	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	23:25	1 Hour	Salmosan	180g
Procrapol	06199	21/06/2018	17:22	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	21:28	1 Hour	Salmosan	180g
Procrapol	06199	22/06/2018	15:45	1 Hour	Salmosan	180g
Procrapol	06199	16/06/2018	08:05	1 Hour	Salmosan	180g
Procrapol	06199	09/06/2018	21:22	1 Hour	Salmosan	180g
Procrapol	06199	09/06/2018	12:36	1 Hour	Salmosan	180g
Procrapol	06199	08/12/2018	14:00	1 Hour	Azasure	100g
Procrapol	06199	08/12/2018	15:05	30 Mins	AMX	125ml
Procrapol	06199	08/12/2018	17:00	1 Hour	Azasure	100g
Procrapol	06199	08/12/2018	18:00	30 Mins	AMX	125ml
Procrapol	06199	08/12/2018	20:20	1 Hour	Azasure	100g
Procrapol	06199	08/12/2018	21:25	30 Mins	AMX	250ml
Eport	06202	18/08/2018	10:08	1 Hour	Salmosan	120g
Trenay	06668	18/08/2018	14:30	1 Hour	Salmosan	120g
Eport	06202	18/08/2018	17:30	1 Hour	Salmosan	120g
Trenay	06668	19/08/2018	08:30	1 Hour	Salmosan	120g
Eport	06202	19/08/2018	11:30	1 Hour	Salmosan	120g
Trenay	06668	19/08/2018	16:15	1 Hour	Salmosan	120g
Eport	06202	20/08/2018	10:30	1 Hour	Salmosan	120g
Trenay	06668	20/08/2018	15:20	1 Hour	Salmosan	120g
Ardcastle	06375	20/10/2018	12:30	1 Hour	Salmosan	200g
Eughlam	06365	22/06/2018	12:09	45 Mins	AMX	600ml
Vuila Mor	06401	25/08/2018	11:26	30 Mins	Salmosan Vet & AMX	200g and 208ml
Vuila Mor	06401	25/08/2018	11:40	40 Mins	Salmosan Vet & AMX	200g and 208ml
Taranaisih	06397	08/09/2018	23:34	40 Mins	Azasure & AMX	200g and 200ml
Vacasay	06402	15/10/2018	15:00	1 Hour	Salmosan Vet	400g
Vacasay	06402	17/10/2018	14:30	1 Hour	Salmosan Vet	400g
Vacasay	06402	19/10/2018	15:30	1 Hour	Salmosan Vet	400g
Procrapol	06199	23/06/2018	08:55	1 Hour	Salmosan	180g
Procrapol	06199	23/06/2018	15:31	1 Hour	Salmosan	180g
Procrapol	06199	23/06/2018	13:57	1 Hour	Salmosan	180g
Procrapol	06199	23/06/2018	08:15	1 Hour	Salmosan	180g
Procrapol	06199	16/12/2018	12:20	1 Hour	Azasure	100g
Procrapol	06199	16/12/2018	13:25	30 Mins	AMX	125ml
Sgeir Dughall	06214	20/11/2018	20:41	1 Hour	Salmosan	200g
Sgeir Dughall	06214	21/11/2018	06:13	1 Hour	Salmosan	200g
Sgeir Dughall	06214	22/11/2018	10:32	1 Hour	Salmosan	200g
Sgeir Dughall	06214	22/11/2018	17:27	1 Hour	Salmosan	200g
Sgeir Dughall	06214	23/11/2018	00:51	1 Hour	Salmosan	200g
Sgeir Dughall	06214	24/11/2018	07:37	1 Hour	Salmosan	200g
Vacasay	06402	23/09/2018	13:05	2 Hours	Salmosan	400g
Vacasay	06402	25/09/2018	01:40	1 Hour	Salmosan	400g
Taranaisih	06397	01/09/2018	12:20	40 Mins	Salmosan Vet & AMX	200g and 208ml
Taranaisih	06397	01/09/2018	18:20	40 Mins	Salmosan Vet & AMX	200g and 208ml
Aird	06369	23/11/2018	00:44	1 Hour	Salmosan	200g
Aird	06369	23/11/2018	08:58	1 Hour	Salmosan	200g
Aird	06369	23/11/2018	15:19	1 Hour	Salmosan	200g
Aird	06369	24/11/2018	16:50	1 Hour	Salmosan	200g
Aird	06369	24/11/2018	21:22	1 Hour	Salmosan	200g
Aird	06369	24/11/2018	04:49	1 Hour	Salmosan	200g
Kenmore	06370	21/11/2018	16:14	1 Hour	Salmosan	200g
Kenmore	06370	21/11/2018	01:25	1 Hour	Salmosan	200g
Procrapol	06199	14/07/2018	10:08	1 Hour	Salmosan	200g
Procrapol	06199	14/07/2018	12:06	1 Hour	Salmosan	200g
Procrapol	06199	10/07/2018	11:45	1 Hour	Salmosan	200g
Procrapol	06199	13/07/2018	10:09	1 Hour	Salmosan	200g
Procrapol	06199	13/07/2018	09:45	1 Hour	Salmosan	200g
Procrapol	06199	11/07/2018	09:31	1 Hour	Salmosan	200g
Procrapol	06199	11/07/2018	08:55	1 Hour	Salmosan	200g
Procrapol	06199	12/07/2018	09:50	1 Hour	Salmosan	200g
Procrapol	06199	12/07/2018	08:34	1 Hour	Salmosan	200g
Procrapol	06199	05/10/2018	14:39	1 Hour	Salmosan	200g
Procrapol	06199	05/10/2018	15:45	30 Mins	AMX	250ml
Procrapol	06199	05/10/2018	14:45	1 Hour	Salmosan	200g
Procrapol	06199	05/10/2018	15:50	30 Mins	AMX	250ml
Procrapol	06199	05/10/2018	19:20	1 Hour	Salmosan	200g
Procrapol	06199	05/10/2018	20:25	30 Mins	AMX	250ml
Trenay	06668	28/06/2018	11:08	1 Hour	Azasure	120g
Trenay	06668	28/06/2018	12:14	1 Hour	Azasure	120g

The Scottish Salmon Company's use of Salmosan Vet (Azamethiphos) without a licence [triggered a letter from Marine Scotland in relation to a breach of the Marine \(Scotland\) Act 2010](#):

marine.scotland



Scottish Government
Riaghaltas na h-Alba
gov.scot

E: ms.marinelicensing@gov.scot

[Redacted]

The Scottish Salmon Company
1 Smithy Lane
Lochgilthead
Argyll
PA31 8TA

Date: 21 September 2018

Dear [Redacted]

MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING – ADVISORY LETTER

I write to the Scottish Salmon Company on behalf of the Marine Scotland – Licensing Operations Team ('MS-LOT'). MS-LOT is responsible, on behalf of the Scottish Ministers, for licensing the deposit of any substance within the Scottish marine area, either in the sea or on or under the seabed from a vessel, under the Marine (Scotland) Act 2010 ('the Act').

Part 4, section 21, subsection (1) of the Act, states clearly what constitutes a licensable marine activity. Under Part 1, section 2 of the Act the sea includes any area submerged at mean high water spring tide or the water of every estuary, river or channel, so far as the tide flows at mean high water spring tide.

It has come to our attention that the Scottish Salmon Company have permitted the carrying on of a licensable marine activity, namely the deposit of chemicals used to treat sea lice, from a vessel, in the Scottish marine area at Vuia Beag.

The Scottish Salmon Company had a marine licence (licence no. 05198/14/0) for the discharge of used chemicals from wellboats at Vuia Beag but this expired on 24 July 2017. MS-LOT has no other record of either a current marine licence or marine licence application for the discharge of used chemicals from wellboats at this site.

Part 4, section 20, subsection (1) of the Act states that no person may carry on a licensable marine activity or cause or permit any other person to carry on such an activity. Part 4, section 39, subsection (1) of the Act states that a person who contravenes section 20 (1) or fails to comply with any condition of a marine licence commits an offence. Part 4, section 39, subsection (4) of the Act states that a person guilty of an offence under subsection (1) is liable on summary conviction, to a fine not exceeding £50,000, or on conviction on indictment, to a fine or to imprisonment for a period not exceeding 2 years, or to both.

MS-LOT is satisfied that the carrying on of the activity has not caused, and is not likely to cause serious harm to the environment, human health or interference with legitimate uses of the sea. As such MS-LOT does not intend to issue any further notices regarding this activity at this time.

A copy of this letter will remain on our files and, in the event of any further breaches of Part 4 of the Act, may be passed to the Procurator Fiscal.

What you should do next

- Do not carry out any licensable activities below MHWS in the absence of a marine licence.
- Apply for a marine licence if you wish to carry out any licensable activities.

Further Information or Guidance

The rules covering marine licensing can be found at Part 4 of the Act. A copy of the Act can be obtained at:

<http://www.legislation.gov.uk/asp/2010/5/contents>

Further information on marine licencing can be obtained from our website at:

<http://www.gov.scot/Topics/marine/Licensing/marine>

It is important that you are fully conversant with all of the rules that apply to your activity and your attention is drawn to the advice given above. If you have any further questions please do not hesitate to get in contact using the details below.

Yours sincerely
[Redacted]

Documents also detailed the [use of Hydrogen Peroxide, Salmosan and AMX \(Deltamethrin\) by Grieg Seafood](#):

55.pdf

2018		Grieg Seafood Ltd				
Site	MCMS No.	Date	Time	Duration	Product	Amount
Swinning 3	06131	15/01/2018	09:30	20 Mins	Peroxide and AMX	9940L and 720ml
Swinning 3	06131	15/01/2018	15:00	20 Mins	Peroxide and AMX	9940L and 720ml
Swinning 3	06131	16/01/2018	09:20	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	16/01/2018	15:40	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	16/01/2018	17:30	20 Mins	Peroxide and AMX	9790L and 720ml
Swinning 3	06131	16/01/2018	08:40	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	16/01/2018	13:25	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	16/01/2018	08:45	20 Mins	Peroxide and AMX	9640L and 720ml
Swinning 3	06131	16/01/2018	14:00	20 Mins	Peroxide and AMX	9640L and 720ml
Settemess South	06121	23/01/2018	10:00	20 Mins	Salmosan	720g
Settemess South	06121	23/01/2018	16:30	20 Mins	Salmosan	720g
Settemess North	06122	16/01/2018	10:20	20 Mins	Salmosan	360g
Settemess North	06122	16/01/2018	09:00	20 Mins	Salmosan	180g
Settemess North	06122	20/01/2018	09:00	20 Mins	Salmosan	720g
Settemess North	06122	20/01/2018	14:40	20 Mins	Salmosan	720g
Settemess North	06122	21/01/2018	09:55	20 Mins	Salmosan	360g
Settemess North	06122	22/01/2018	10:20	20 Mins	Salmosan	720g
Settemess North	06122	22/01/2018	19:40	20 Mins	Salmosan	720g
Swinning 3	06131	14/05/2018	15:30	20 Mins	Peroxide and AMX	2921L and 200ml
Swinning 3	06131	15/05/2018	10:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	15/05/2018	13:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	15/05/2018	16:00	20 Mins	Peroxide and AMX	5374L and 400ml
Swinning 3	06131	16/05/2018	12:00	20 Mins	Peroxide and AMX	5072L and 400ml
Swinning 3	06131	16/05/2018	16:00	20 Mins	Peroxide and AMX	5072L and 400ml
Swinning 3	06131	17/05/2018	10:00	20 Mins	Peroxide and AMX	4417L and 400ml
Swinning 3	06131	17/05/2018	15:30	20 Mins	Peroxide and AMX	4417L and 400ml
Settemess North	06122	18/05/2018	10:05	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	19/05/2018	09:25	20 Mins	Peroxide and Salmosan	10800L and 720g
Settemess North	06122	19/05/2018	15:40	20 Mins	Peroxide and Salmosan	10800L and 720g
Settemess North	06122	20/05/2018	10:00	20 Mins	Peroxide and Salmosan	8100L and 540g
Settemess North	06122	20/05/2018	15:30	20 Mins	Peroxide and Salmosan	8100L and 540g
Settemess North	06122	21/05/2018	19:00	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	22/05/2018	11:00	20 Mins	Peroxide and Salmosan	8800L and 720g
Settemess North	06122	22/05/2018	18:00	20 Mins	Peroxide and Salmosan	8800L and 720g
Settemess North	06122	23/05/2018	18:00	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	24/05/2018	19:05	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	25/05/2018	19:00	20 Mins	Peroxide and Salmosan	5400L and 360g

Settemess North	06122	26/05/2018	19:50	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	27/05/2018	19:05	20 Mins	Peroxide and Salmosan	5400L and 360g
Settemess North	06122	28/05/2018	20:00	20 Mins	Peroxide and Salmosan	2700L and 180g
Settemess North	06122	29/05/2018	18:20	20 Mins	Peroxide and Salmosan	5400L and 360g
South of Linga	06714	31/08/2018	08:30	20 Mins	Salmosan	600g
South of Linga	06714	31/08/2018	13:45	20 Mins	Salmosan	600g
South of Linga	06714	31/08/2018	19:45	20 Mins	Salmosan	600g
South of Linga	06714	01/09/2018	09:00	20 Mins	Salmosan	400g
South of Linga	06714	01/09/2018	14:20	20 Mins	Salmosan	400g
Settemess North	06122	23/08/2018	17:00	20 Mins	Salmosan	400g
Settemess North	06122	23/08/2018	20:00	20 Mins	Salmosan	400g
Settemess North	06122	24/08/2018	09:25	20 Mins	Salmosan	600g
Settemess North	06122	24/08/2018	16:00	20 Mins	Salmosan	600g
Settemess North	06122	24/08/2018	20:20	20 Mins	Salmosan	600g
Settemess North	06122	25/08/2018	02:00	20 Mins	Salmosan	600g
Settemess North	06122	25/08/2018	06:10	20 Mins	Salmosan	600g
Settemess North	06122	25/08/2018	12:15	20 Mins	Salmosan	600g
Settemess North	06122	25/08/2018	16:40	20 Mins	Salmosan	400g
Settemess North	06122	25/08/2018	22:30	20 Mins	Salmosan	400g
Settemess North	06122	26/08/2018	12:40	20 Mins	Salmosan	400g
Settemess North	06122	26/08/2018	17:50	20 Mins	Salmosan	400g
Settemess North	06122	27/08/2018	01:20	20 Mins	Salmosan	600g
Settemess North	06122	27/08/2018	08:55	20 Mins	Salmosan	600g
Settemess North	06122	27/08/2018	15:55	20 Mins	Salmosan	600g
Settemess North	06122	28/08/2018	03:45	20 Mins	Salmosan	600g
Settemess North	06122	28/08/2018	10:50	20 Mins	Salmosan	600g
Settemess North	06122	28/08/2018	16:15	20 Mins	Salmosan	600g
Settemess North	06122	29/08/2018	03:30	20 Mins	Salmosan	400g
Settemess North	06122	29/08/2018	10:45	20 Mins	Salmosan	400g
Gob Na Hoe	06032	27/08/2018	09:30	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	29/08/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	30/08/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	01/09/2018	10:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	04/09/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	05/09/2018	09:30	20 Mins	Salmosan and Peroxide	200g and 1200L
Gob Na Hoe	06032	06/09/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Leinish	06031	27/08/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Leinish	06031	30/08/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Leinish	06031	01/09/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Leinish	06031	03/09/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Leinish	06031	04/09/2018	09:00	20 Mins	Salmosan and Peroxide	400g and 2400L
Leinish	06031	04/09/2018	13:00	20 Mins	Salmosan and Peroxide	400g and 2400L
Leinish	06031	05/09/2018	09:00	20 Mins	Salmosan and Peroxide	200g and 1200L
Settemess North	06122	14/09/2018	09:30	20 Mins	Salmosan	400g
Settemess North	06122	14/09/2018	15:50	20 Mins	Salmosan	400g
Settemess North	06122	15/09/2018	11:30	20 Mins	Salmosan	400g
Settemess North	06122	15/09/2018	14:30	20 Mins	Salmosan	400g
Settemess North	06122	17/09/2018	13:10	20 Mins	Salmosan	400g
Settemess North	06122	17/09/2018	17:45	20 Mins	Salmosan	400g
Settemess North	06122	18/09/2018	12:15	20 Mins	Salmosan	400g
Settemess North	06122	18/09/2018	16:00	20 Mins	Salmosan	400g
South of Linga	06714	22/09/2018	09:30	20 Mins	Salmosan	200g
South of Linga	06714	23/09/2018	08:00	20 Mins	Salmosan	400g
South of Linga	06714	23/09/2018	12:20	20 Mins	Salmosan	400g
South of Linga	06714	24/09/2018	07:50	20 Mins	Salmosan	400g
South of Linga	06714	24/09/2018	12:00	20 Mins	Salmosan	400g
South of Linga	06714	25/09/2018	08:00	20 Mins	Salmosan	200g
North Voe Whalsay	06029	08/10/2018	08:00	20 Mins	AMX	160ml
North Voe Whalsay	06029	09/10/2018	08:00	20 Mins	AMX	160ml
North Voe Whalsay	06029	10/10/2018	09:00	20 Mins	AMX	160ml
North Voe Whalsay	06029	14/10/2018	08:00	20 Mins	AMX	160ml
Colarach	06752	19/10/2018	09:00	20 Mins	Salmosan	400g
Colarach	06752	24/10/2018	09:00	20 Mins	Salmosan	400g
Leinish	06031	19/10/2018	09:00	20 Mins	Salmosan	200g
North Voe Whalsay	06029	01/11/2018	12:00	20 Mins	Peroxide	5000L
North Voe Whalsay	06029	01/11/2018	15:10	20 Mins	Peroxide	5000L

AMX is Deltamethrin [described by SEPA as a "potent biocide"](#):

Mode of action

Deltamethrin is a potent biocide, which formulated as AMX is designed to kill small crustaceans in the form of sea lice. It is a synthetic pyrethroid, closely related to cypermethrin which is already widely used in Scotland and other countries as a sea lice treatment in the product "Excis". Excis is currently licensed by SEPA at approximately 350 cage fish farm sites. Like cypermethrin, deltamethrin is a neurotoxin which acts by interfering with the sodium and potassium channels in the peripheral and central nervous systems of arthropods (a group of animals including insects and crustaceans). Deltamethrin exposure causes repetitive firings of the nerve endings as well as increased and sustained membrane action potentials that overwhelm the muscular neurotransmitters resulting in paralysis and death. AMX is administered topically by enclosing the fish farm cage within an impervious tarpaulin for the duration of the treatment. The treatment concentration is 0.2ml of AMX per cubic metre of enclosed seawater, an equivalent concentration of 2µg/l of deltamethrin.

Other salmon farming companies [reporting the use of toxic chemicals via well boats in 2018](#) were [Cooke Aquaculture](#):

56.pdf

2018	Cooke Aquaculture					
<u>Site</u>	<u>MCMS No.</u>	<u>Date</u>	<u>Time</u>	<u>Duration</u>	<u>Product</u>	<u>Amount</u>
Bastaness	05811	23/12/2018	16:00	55 Mins	Salmosan	200g
Bastaness	05811	24/12/2018	11:10	1 Hour	Salmosan	200g
Bastaness	05811	27/12/2018	14:20	50 Mins	Salmosan	200g
Bastaness	05811	28/12/2018	14:30	50 Mins	Salmosan	200g
Bastaness	05811	29/12/2018	14:10	1 Hour	Salmosan	200g
Bastaness	05811	30/12/2018	13:40	50 Mins	Salmosan	200g
Djubawick	05822	22/01/2018	16:00	55 Mins	Salmosan	200g
Djubawick	05822	22/12/2018	13:40	55 Mins	Salmosan	100g

In 2013, [Cooke Aquaculture in Canada was fined \\$500,000 for the illegal use of toxic chemicals killing hundreds of lobsters.](#)

New Brunswick

Aquaculture company on the hook for \$500K for pesticide use



Kelly Cove Salmon pleaded guilty to 2 charges related to deaths of lobsters in Bay of Fundy

CBC News - Posted: Apr 26, 2013 11:23 AM AT | Last Updated: April 26, 2013

A New Brunswick aquaculture company has been ordered to pay \$500,000 after pleading guilty to two charges in connection with the deaths of hundreds of lobsters in the Bay of Fundy from an illegal pesticide about three years ago.

The penalty against Kelly Cove Salmon Ltd. is the largest ever imposed in New Brunswick for environmental violations under the federal Fisheries Act, according to an Environment Canada official.

And "it's in the top three fines in Canada," said Robert Robichaud, regional operations manager for the environmental enforcement division in New Brunswick.

"We feel that it will definitely send strong message, not only to the aquaculture sector, but to other marine users, that the illegal use of pesticides is simply not tolerable."

Environment Canada had [charged Kelly Cove Salmon](#) and three company executives with 19 counts each of depositing a substance that's harmful to fish into fish-bearing water, under the Fisheries Act.

Kelly Cove Salmon, a division of Cooke Aquaculture, which is based in Blacks Harbour, pleaded guilty to two of the counts in St. Stephen provincial court on Friday morning.

Read more on the toxic impacts of Azamethiphos (Salmosan) via "[Scientific Backgrounder: Ecotoxicity & Chemical Resistance](#)":

A scientific paper - "[Repeated sublethal exposures to the sea lice pesticide Salmosan® \(azamethiphos\) on adult male lobsters \(Homarus americanus\) causes neuromuscular dysfunction, hypoxia, metabolic disturbances and mortality](#)" - published in Ecotoxicology and Environmental Safety in December 2016 adds to the weight of scientific evidence detailing lethal and sub-lethal impacts of Azamethiphos on lobsters and in mussels (read more via "[Sublethal impact of short term exposure to the organophosphate pesticide azamethiphos in the marine mollusc Mytilus edulis](#)" published in Marine Pollution Bulletin in 2006; "[Seasonal lethality of the organophosphate pesticide, azamethiphos to female American lobster](#)" published in Ecotoxicology and Environmental Safety in 2005; "[The lethality of Salmosan \(Azamethiphos\) to American lobster \(Homarus americanus\) larvae, postlarvae, and adults](#)" published in Ecotoxicology and Environmental Safety in 1999; and "[The effects of cypermethrin \(Excis\) and azamethiphos \(Salmosan\) on lobster Homarus americanus H. Milne Edwards larvae in a laboratory study](#)" published in Aquaculture Research in 1999).

Mowi (formerly Marine Harvest) [reported the use of Azamethiphos and Deltamethrin in well boats in 2018](#):

57.pdf

2018	Marine Harvest/Mowi					
Site	MCMS No.	Date	Time	Duration	Product	Amount
Colonsay	05998	15/06/2018	22:00	4 Hours	Azamethiphos	220g
Colonsay	05998	16/06/2018	06:00	4 Hours	Azamethiphos	220g
Colonsay	05998	16/06/2018	23:30	4 Hours	Azamethiphos	220g
Colonsay	05998	16/06/2018	16:00	6 Hours	Azamethiphos	220g
Colonsay	05998	17/06/2018	08:00	4 Hours	Azamethiphos	220g
Colonsay	05998	17/06/2018	21:00	3 Hours	Azamethiphos	220g
Colonsay	05998	17/06/2018	12:23	4 Hours	Azamethiphos	220g
Colonsay	05998	18/06/2018	05:40	4 Hours	Azamethiphos	220g
Colonsay	05998	18/06/2018	19:02	4 Hours	Azamethiphos	220g
Colonsay	05998	18/06/2018	16:36	4 Hours	Azamethiphos	220g
Colonsay	05998	19/06/2018	03:07	4 Hours	Azamethiphos	220g
Colonsay	05998	19/06/2018	20:56	4 Hours	Azamethiphos	220g
Colonsay	05998	19/06/2018	11:07	4 Hours	Azamethiphos	220g
Colonsay	05998	20/06/2018	11:37	4 Hours	Azamethiphos	220g
Colonsay	05998	20/06/2018	17:44	4 Hours	Azamethiphos	110g
Gorsten	06004	18/08/2018	15:55	30 Mins	Deltametrin	2.7g
Gorsten	06004	18/08/2018	15:55	30 Mins	Deltametrin	0.9g
Gorsten	06004	18/08/2018	11:50	30 Mins	Deltametrin	3.33g
Gorsten	06004	18/08/2018	11:50	30 Mins	Deltametrin	0.27g
Greshomish	06005	21/02/2018	13:28	1 Hour	Azamethiphos	200g
Greshomish	06005	23/02/2018	14:05	45 Mins	Azamethiphos	200g
Greshomish	06005	15/03/2018	20:53	1 Hour	Azamethiphos	200g
Greshomish	06005	21/03/2018	20:05	1 Hour	Azamethiphos	200g

Watch [video footage of mass mortalities at Mowi's Gorsten salmon farm in November 2018](#):



Read more via [Sunday Mail: "Scottish salmon farms in disease hell row after tons of rotting fish dumped in skips"](#)

According to the [documents disclosed by the Scottish Government in November 2019](#), Marine Harvest (re-named Mowi in January 2019) has [dozens of vessels registered to discharge toxic chemicals at Mowi salmon farms](#) (including Norwegian & Chilean registered vessels):

ANNEX ONE

Vessels authorised to be used for chemical discharge at licensed **Marine Harvest (Scotland) Ltd** sites.

*	06027/16/0	11 January 2020
*	06026/16/0	11 January 2020
*	06024/16/0	11 September 2019
*	06023/16/0	11 September 2019
*	06022/16/0	03 August 2019
*	06021/16/0	11 September
*	06020/16/0	01 August 2019
*	06019/16/0	11 September 2019
*	06018/18/0	11 September 2019
*	06017/16/0	01 August 2019
*	06016/16/0	01 August 2019
*	06015/16/0	01 August 2019
*	06014/16/0	11 September 2019
*	06011/16/0	11 September 2019
*	06010/17/0	11 September 2019
*	06009/17/0	12 January 2020
*	06008/17/0	16 October 2019
*	06006/16/0	11 December 2019
*	06005/16/0	21 July 2019
*	06004/16/0	11 September 2019
*	06003/17/0	12 January 2020
*	06002/16/0	11 December 2019
*	06001/16/0	18 September 2019
*	05998/16/0	28 July 2019
*	05997/17/0	03 April 2020
*	05996/16/0	11 September 2019
*	05994/16/0	11 September 2019
*	05984/16/0	01 June 2019
*	05968/16/0	08 May 2019
*	05891/17/0	12 April 2020
*	05887/16/0	05 April 2019
*	05886/17/0	09 August 2019
*	05884/16/0	05 April 2019
*	05881/18/0	14 August 2019
*	05869/16/0	17 May 2019
*	05768/15/0	18 November 2018
*	05747/16/0	18 February 2019
*	05662/16/0	06 January 2019
*	05660/16/0	06 January 2019
*	05659/16/0	15 March 2019
*	05656/16/1	06 January 2019
*	05635/15/0	17 December 2018
*	05576/15/1	23 June 2018
*	05575/15/1	14 June 2018
*	05997/17/1	03 April 2020
*	05884/181	05 April 2019
*	06362/18/0	19 April 2021
*	06391/18/0	19 April 2021

Vessel Name	IMO	Flag
Ronja Commander	9276183	Norway
Ronja Pioneer	9345520	Norway
Ronja Challenger	9765067	Norway
Inter Caledonia	9745756	Norway
Viktorja Viking	9521801	Norway
Ronja Atlantic	9451563	Chile
Ronja Nordic	9443695	Norway
Ronja Superior	9421881	Norway
Ronja Skye	9245926	Norway
Ronja Viking	9364100	Norway
Ronja Settler		

Documents disclosed included copies of 'Licence for Discharge of Used Chemicals from Wellboats' with specific details including the location of the discharge - here's an extract from [Mowi's 'Licence for Discharge of Used Chemicals from Wellboats' at Bagh Dail nan Ceann \(Bay of the Dead Heads\)](#) in Loch Shuna:

Location of discharge of the used chemical(s) or agent(s):

Bagh Dail Nan Ceann, Loch Shuna at a point alongside any cage at the fish farm located by the coordinates:

56° 10.87' N 005° 35.18' W

The treatment of fish should be carried out in such a way as to minimise the discharge of chemical(s) or agent(s).

"*Force majeure*" may apply when, due to stress of weather or any other cause, it is necessary to discharge the chemicals or agents at a location other than that specified in Part 1 of the Schedule because the safety of human life, or a vessel or vehicle, is threatened. If chemicals or agents are discharged in an unauthorised area, full details of the circumstances must be immediately notified to the licensing authority. (See also notes appended to the Schedule).

No dead fish must be discharged to the water environment at any time. Any dead fish must be disposed of above the Mean High Water Springs in an appropriate manner.

Works must only be carried out in accordance with the Treatment Procedure (dated 28 October 2015) as provided with the application and Marine Scotland Licensing Operations Team (MS-LOT) must be informed if alterations are made to the treatment procedure. Copies of the treatment procedure must be kept with copies of the licence.

Only those chemicals or agents described in Part 1, section 5 of the Schedule (the authorised deposits) must be discharged under authority of the licence and all associated tank/hopper washings must be discharged at the location(s) specified in Part 1, section 4 of the Schedule.

The method of discharge must be:

Pumped discharge via pipe/hatches from Wellboat at a depth of surface to 2 metres below sea surface.

Scottish Salmon Watch's [visit to Mowi's 'Bay of the Dead Heads' salmon farm in July 2019 revealed dead and dying 'cleaner fish' on the surface - prompting a welfare investigation from the Animal & Plant Health Agency](#):



Read more via "[Salmon farming firm under fire over fish welfare after 700,000 deaths](#)"

[5] SEPA's '[Scottish Pollutant Release Inventory](#)' is shamefully still to publish 2018 or 2019 data on the use of toxic chemicals such as Azamethiphos and Deltamethrin via well boats.


Scottish pollutant release inventory

[SPRI Home](#) | [About SPRI](#)

[Search Options](#) | [Search Criteria](#) | [Results Summary](#) | **[Search Results](#)**

Pollutant Search Results

Pollutant	Azamethiphos
Media	Water
Units	Kg
Reporting Threshold	0.001 (2018)
Industry Sector	All

Year of Return	Registered Company Name (Site Name)	Site Address	Total Release	Return Availability	Site Graph
2018	The Scottish Salmon Company Ltd St Molios MCFF, Lamlash Bay	Lamlash Bay, St Molios, Lamlash, Isle of Arran KA27 8RG	N/A	Not Yet Agreed	
2018	The Scottish Salmon Company Ltd Gob a'Bharra North MCFF, Loch Fyne	Loch Fyne, West of Drum Point, Drum, Portavadie, Argyll PA21 2ER	N/A	Not Yet Agreed	
2018	MARINE HARVEST (SCOTLAND) LIMITED Camas Glas MCFF, Loch Sunart	Camas Glas, Loch Sunart, Camasglas, Laga Bay, Glenborrodale, Highland PH34 5XE	N/A	Not Yet Agreed	
2018	MARINE HARVEST (SCOTLAND) LIMITED Ardnish MCFF, Loch Ailort	Loch Ailort, Sound of Arisaig, Pontoon Pier, Lochailort, Ardnish, By Mallaig, Highland PH38 4LZ	-	Not Yet Agreed	
2018	Loch Duart Ltd Eilean Ard MCFF (Site 3), Loch Laxford	Loch Laxford, East of Eilean Ard, Tarbet, Scourie, Highland IV27 4SU	N/A	Not Yet Agreed	

2017 data published via SEPA's '[Scottish Pollutant Release Inventory](#)' shows salmon farms operated by Marine Harvest ([re-named Mowi in 2019](#)) ranked the worst (i.e. using the most) in terms of Azamethiphos:

SEPA
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Scottish pollutant release inventory

SPRI Home About SPRI

Search Options Search Criteria Results Summary **Search Results**

Pollutant Search Results

Pollutant	Azamethiphos
Media	Water
Units	Kg
Reporting Threshold	0.001 (2017)
Industry Sector	All

Year of Return	Registered Company Name (Site Name)	Site Address	Total Release	Return Availability	Site Graph
2017	MARINE HARVEST (SCOTLAND) LIMITED Invasion Bay MCFF, Loch Sunart	Invasion Bay, Loch Sunart, South of Tarran a Chonnaidh, Laudale House, Liddesdale, Argyll PH33 7AF	15.1	Agreed	
2017	MARINE HARVEST (SCOTLAND) LIMITED Creag an Sagairt (West), Arnisdale, Glenelg	Creag an Sagairt (West) MCFF, LOCH HOURN, ARNISDALE, GLENELG, KYLE IV40 8JH	14.2	Agreed	
2017	MARINE HARVEST (SCOTLAND) LIMITED Sron MCFF, Loch Alsh	Loch Alsh, Sron an Tairbh, East of Kyleakin, Kyle, Isle of Skye IV41 8PR	13.9	Agreed	
2017	Grieg Seafood Shetland Limited Easter Score Holm MCFF, Haddock Sands	Haddock Sands, Easter Score Holm, East of Reawick, Shetland ZE2 9NJ	13.9	Agreed	
2017	MARINE HARVEST (SCOTLAND) LIMITED Callert MCFF, Loch Leven	Loch Leven, Rubh Aird Daraich, Callert, North of Ballachlisch, Highland PH33 6SA	13.5	Agreed	

Mowi ([Marine Harvest](#)) are also ranked the highest user of Deltamethrin in 2017 (according to SEPA's '[Scottish Pollutant Release Inventory](#)')

Pollutant Search Results

Pollutant	Deltamethrin
Media	Water
Units	Kg
Reporting Threshold	0.002 (2017)
Industry Sector	All

Year of Return	Registered Company Name (Site Name)	Site Address	Total Release	Return Availability	Site Graph
2017	MARINE HARVEST (SCOTLAND) LIMITED Soay Sound MCFF, West Loch Tarbert	Soay Sound, West Loch Tarbert, East of Sodhaigh Mor, Cliasmol, Isle of Harris, Western Isles HS3 3AU	0.263	Agreed	
2017	The Scottish Salmon Company Ltd Greanamul MCFF, Isle of Benbecula	GREANAMUL MCFF, ISLE OF BENBECULA	0.24	Agreed	
2017	Kames Fish Farming Limited Castle Bay MCFF, Shuna	Castle Bay, Loch Melfort, North of Sgeir Chreagag, Shuna, by Oban, Argyll PA34 4SZ	0.174	Agreed	
2017	MARINE HARVEST (SCOTLAND) LIMITED Carradale (North) MCFF, Carradale	Carradale (North) MCFF, The Red Shed, Carradale PA28 6SB	0.15	Agreed	
2017	MARINE HARVEST (SCOTLAND) LIMITED Maol Ban East MCFF, Caol Mor, Isle of Skye	Luib na Moil, Caol Mor, Maol Ban, Tormichaig, East of Scalpay, Isle of Skye IV48 8TD	0.148	Agreed	

[6] FOI correspondence between Scottish Salmon Watch and SEPA:

From: **Goodheir, Jennifer** <Jennifer.Goodheir@sepa.org.uk>
 Date: Fri, Dec 13, 2019 at 4:38 PM
 Subject: FORMAL REVIEW RESPONSE - F0191198
 To: salmonfarmingkills@gmail.com <salmonfarmingkills@gmail.com>
 Cc: Access to Information Enquiries <FOI.Mail@sepa.org.uk>

Dear Mr Staniford

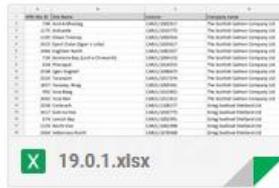
FORMAL REVIEW RESPONSE

Please refer to the enclosed response in relation to your request for information.

Regards

Jennifer Goodheir on behalf of
 SEPA Access to Information team
 Email: foi@sepa.org.uk
 Tel: 01786 457700

5 Attachments



Attachment #1:

2018							
Scottish Sea Farms							
Site	MCMS No.	Date	Time	Duration	Product	Amount	Comments
							Nil Return

2018							
The Scottish Salmon Company							
	Site	MCMS No.	Date	Time	Duration	Product	Amount
3	Vuia Beag	No Licence	7/14/2018	09:34	30 Mins	Salmosan Vet	200g
4	Vuia Beag	No Licence	7/15/2018	09:46	30 Mins	Salmosan Vet	200g
5	Vuia Beag	No Licence	7/21/2018	09:46	30 Mins	Salmosan Vet	200g
6	Vuia Beag	No Licence	7/22/2018	09:34	30 Mins	Salmosan Vet	200g
7	Vuia Beag	No Licence	8/3/2018	12:00	30 Mins	Salmosan Vet	200g
8	Vuia Beag	No Licence	8/4/2018	12:10	30 Mins	Salmosan Vet	200g
9	Vuia Beag	No Licence	8/5/2018	12:02	30 Mins	Salmosan Vet	200g
10	Taranaish	06397	10/3/2018	02:35	40 Mins	Azasure/AMX	400g and 400ml
11	Taranaish	06397	10/4/2018	03:20	40 Mins	Azasure/AMX	400g and 400ml
12	Taranaish	06397	10/4/2018	08:20	40 Mins	Azasure/AMX	400g and 400ml
13	Taranaish	06397	10/4/2018	18:50	40 Mins	Azasure/AMX	400g and 400ml
14	Procrapol	06199	6/15/2018	00:23	1 Hour	Salmosan	180g
15	Procrapol	06199	6/15/2018	20:38	1 Hour	Salmosan	180g
16	Procrapol	06199	6/22/2018	01:25	1 Hour	Salmosan	180g
17	Procrapol	06199	6/22/2018	23:25	1 Hour	Salmosan	180g
18	Procrapol	06199	6/21/2018	17:22	1 Hour	Salmosan	180g
19	Procrapol	06199	6/22/2018	21:28	1 Hour	Salmosan	180g
20	Procrapol	06199	6/22/2018	15:45	1 Hour	Salmosan	180g
21	Procrapol	06199	6/16/2018	08:05	1 Hour	Salmosan	180g
22	Procrapol	06199	6/9/2018	21:22	1 Hour	Salmosan	180g
23	Procrapol	06199	6/9/2018	12:36	1 Hour	Salmosan	180g
24	Procrapol	06199	12/8/2018	14:00	1 Hour	Azasure	100g
25	Procrapol	06199	12/8/2018	15:05	30 Mins	AMX	125ml
26	Procrapol	06199	12/8/2018	17:00	1 Hour	Azasure	100g
27	Procrapol	06199	12/8/2018	18:00	30 Mins	AMX	125ml

1	2018 Grieg Seafood Ltd						
2	Site	MCMS No.	Date	Time	Duration	Product	Amount
3	Swinning 3	06131	1/15/2018	9:30	20 Mins	Peroxide and AMX	9940L and 720ml
4	Swinning 3	06131	1/15/2018	15:00	20 Mins	Peroxide and AMX	9940L and 720ml
5	Swinning 3	06131	1/16/2018	9:20	20 Mins	Peroxide and AMX	9790L and 720ml
6	Swinning 3	06131	1/16/2018	15:40	20 Mins	Peroxide and AMX	9790L and 720ml
7	Swinning 3	06131	1/16/2018	17:30	20 Mins	Peroxide and AMX	9790L and 720ml
8	Swinning 3	06131	1/18/2018	8:40	20 Mins	Peroxide and AMX	9640L and 720ml
9	Swinning 3	06131	1/18/2018	13:25	20 Mins	Peroxide and AMX	9640L and 720ml
10	Swinning 3	06131	1/19/2018	8:45	20 Mins	Peroxide and AMX	9640L and 720ml
11	Swinning 3	06131	1/19/2018	14:00	20 Mins	Peroxide and AMX	9640L and 720ml
12	Settemess South	06121	1/23/2018	10:00	20 Mins	Salmosan	720g
13	Settemess South	06121	1/23/2018	16:30	20 Mins	Salmosan	720g
14	Settemess North	06122	1/18/2018	10:20	20 Mins	Salmosan	360g
15	Settemess North	06122	1/19/2018	9:00	20 Mins	Salmosan	180g
16	Settemess North	06122	1/20/2018	9:00	20 Mins	Salmosan	720g
17	Settemess North	06122	1/20/2018	14:40	20 Mins	Salmosan	720g
18	Settemess North	06122	1/21/2018	9:55	20 Mins	Salmosan	360g
19	Settemess North	06122	1/22/2018	10:20	20 Mins	Salmosan	720g
20	Settemess North	06122	1/22/2018	19:40	20 Mins	Salmosan	720g
21	Swinning 3	06131	5/14/2018	15:30	20 Mins	Peroxide and AMX	2921L and 200ml
22	Swinning 3	06131	5/15/2018	10:00	20 Mins	Peroxide and AMX	5374L and 400ml
23	Swinning 3	06131	5/15/2018	13:00	20 Mins	Peroxide and AMX	5374L and 400ml
24	Swinning 3	06131	5/15/2018	16:00	20 Mins	Peroxide and AMX	5374L and 400ml
25	Swinning 3	06131	5/16/2018	12:00	20 Mins	Peroxide and AMX	5072L and 400ml
26	Swinning 3	06131	5/16/2018	16:00	20 Mins	Peroxide and AMX	5072L and 400ml
27	Swinning 3	06131	5/17/2018	10:00	20 Mins	Peroxide and AMX	4417L and 400ml
28	Swinning 3	06131	5/17/2018	15:30	20 Mins	Peroxide and AMX	4417L and 400ml
29	Settemess North	06122	5/18/2018	10:05	20 Mins	Peroxide and Salmosan	5400L and 360g
30	Settemess North	06122	5/19/2018	9:25	20 Mins	Peroxide and Salmosan	10800L and 720g
31	Settemess North	06122	5/19/2018	15:40	20 Mins	Peroxide and Salmosan	10800L and 720g
32	Settemess North	06122	5/20/2018	10:00	20 Mins	Peroxide and Salmosan	8100L and 540g
33	Settemess North	06122	5/20/2018	15:30	20 Mins	Peroxide and Salmosan	8100L and 540g
34	Settemess North	06122	5/21/2018	19:00	20 Mins	Peroxide and Salmosan	5400L and 360g
35	Settemess North	06122	5/22/2018	11:00	20 Mins	Peroxide and Salmosan	8800L and 720g
36	Settemess North	06122	5/22/2018	18:00	20 Mins	Peroxide and Salmosan	8800L and 720g
37	Settemess North	06122	5/23/2018	18:00	20 Mins	Peroxide and Salmosan	5400L and 360g
38	Settemess North	06122	5/24/2018	19:05	20 Mins	Peroxide and Salmosan	5400L and 360g
39	Settemess North	06122	5/25/2018	19:00	20 Mins	Peroxide and Salmosan	5400L and 360g
40	Settemess North	06122	5/26/2018	19:50	20 Mins	Peroxide and Salmosan	5400L and 360g
41	Settemess North	06122	5/27/2018	19:05	20 Mins	Peroxide and Salmosan	5400L and 360g
42	Settemess North	06122	5/28/2018	20:00	20 Mins	Peroxide and Salmosan	2700L and 180g
43	Settemess North	06122	5/29/2018	18:20	20 Mins	Peroxide and Salmosan	5400L and 360g
44	South of Linga	06714	8/31/2018	8:30	20 Mins	Salmosan	600g
45	South of Linga	06714	8/31/2018	13:45	20 Mins	Salmosan	600g
46	South of Linga	06714	8/31/2018	19:45	20 Mins	Salmosan	600g
47	South of Linga	06714	9/1/2018	9:00	20 Mins	Salmosan	400g
48	South of Linga	06714	9/1/2018	14:20	20 Mins	Salmosan	400g
49	Settemess North	06122	8/23/2018	17:00	20 Mins	Salmosan	400g
50	Settemess North	06122	8/23/2018	20:00	20 Mins	Salmosan	400g
51	Settemess North	06122	8/24/2018	9:25	20 Mins	Salmosan	600g
52	Settemess North	06122	8/24/2018	16:00	20 Mins	Salmosan	600g
53	Settemess North	06122	8/24/2018	20:20	20 Mins	Salmosan	600g
54	Settemess North	06122	8/25/2018	2:00	20 Mins	Salmosan	600g
55	Settemess North	06122	8/25/2018	6:10	20 Mins	Salmosan	600g
56	Settemess North	06122	8/25/2018	12:15	20 Mins	Salmosan	600g
57	Settemess North	06122	8/25/2018	16:40	20 Mins	Salmosan	400g
58	Settemess North	06122	8/25/2018	22:30	20 Mins	Salmosan	400g
59	Settemess North	06122	8/26/2018	12:40	20 Mins	Salmosan	400g
60	Settemess North	06122	8/26/2018	17:50	20 Mins	Salmosan	400g
61	Settemess North	06122	8/27/2018	1:20	20 Mins	Salmosan	600g
62	Settemess North	06122	8/27/2018	8:55	20 Mins	Salmosan	600g
63	Settemess North	06122	8/27/2018	15:55	20 Mins	Salmosan	600g
64	Settemess North	06122	8/28/2018	3:45	20 Mins	Salmosan	600g
65	Settemess North	06122	8/28/2018	10:50	20 Mins	Salmosan	600g
66	Settemess North	06122	8/28/2018	16:15	20 Mins	Salmosan	600g
67	Settemess North	06122	8/29/2018	3:30	20 Mins	Salmosan	400g
68	Settemess North	06122	8/29/2018	10:45	20 Mins	Salmosan	400g
69	Gob Na Hoe	06032	8/27/2018	9:30	20 Mins	Salmosan and Peroxide	200g and 1200L
70	Gob Na Hoe	06032	8/29/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
71	Gob Na Hoe	06032	8/30/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L

72	Gob Na Hoe	06032	9/1/2018	10:00	20 Mins	Salmosan and Peroxide	200g and 1200L
73	Gob Na Hoe	06032	9/4/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
74	Gob Na Hoe	06032	9/5/2018	9:30	20 Mins	Salmosan and Peroxide	200g and 1200L
75	Gob Na Hoe	06032	9/6/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
76	Leinish	06031	8/27/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
77	Leinish	06031	8/30/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
78	Leinish	06031	9/1/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
79	Leinish	06031	9/3/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
80	Leinish	06031	9/4/2018	9:00	20 Mins	Salmosan and Peroxide	400g and 2400L
81	Leinish	06031	9/4/2018	13:00	20 Mins	Salmosan and Peroxide	400g and 2400L
82	Leinish	06031	9/5/2018	9:00	20 Mins	Salmosan and Peroxide	200g and 1200L
83	Settemess North	06122	9/14/2018	9:30	20 Mins	Salmosan	400g
84	Settemess North	06122	9/14/2018	15:50	20 Mins	Salmosan	400g
85	Settemess North	06122	9/15/2018	11:30	20 Mins	Salmosan	400g
86	Settemess North	06122	9/15/2018	14:30	20 Mins	Salmosan	400g
87	Settemess North	06122	9/17/2018	13:10	20 Mins	Salmosan	400g
88	Settemess North	06122	9/17/2018	17:45	20 Mins	Salmosan	400g
89	Settemess North	06122	9/18/2018	12:15	20 Mins	Salmosan	400g
90	Settemess North	06122	9/18/2018	16:00	20 Mins	Salmosan	400g
91	South of Linga	06714	9/22/2018	9:30	20 Mins	Salmosan	200g
92	South of Linga	06714	9/23/2018	8:00	20 Mins	Salmosan	400g
93	South of Linga	06714	9/23/2018	12:20	20 Mins	Salmosan	400g
94	South of Linga	06714	9/24/2018	7:50	20 Mins	Salmosan	400g
95	South of Linga	06714	9/24/2018	12:00	20 Mins	Salmosan	400g
96	South of Linga	06714	9/25/2018	8:00	20 Mins	Salmosan	200g
97	North Voe Whalsay	06029	10/8/2018	8:00	20 Mins	AMX	160ml
98	North Voe Whalsay	06029	10/9/2018	8:00	20 Mins	AMX	160ml
99	North Voe Whalsay	06029	10/10/2018	9:00	20 Mins	AMX	160ml
100	North Voe Whalsay	06029	10/14/2018	8:00	20 Mins	AMX	160ml
101	Colarach	06752	10/19/2018	9:00	20 Mins	Salmosan	400g
102	Colarach	06752	10/24/2018	9:00	20 Mins	Salmosan	400g
103	Leinish	06031	10/19/2018	9:00	20 Mins	Salmosan	200g
104	North Voe Whalsay	06029	11/1/2018	12:00	20 Mins	Peroxide	5000L
105	North Voe Whalsay	06029	11/1/2018	15:10	20 Mins	Peroxide	5000L

1							
	2018	Cooke Aquaculture					
2	Site	MCMS No.	Date	Time	Duration	Product	Amount
3	Bastaness	05811	12/23/2018	16:00	55 Mins	Salmosan	200g
4	Bastaness	05811	12/24/2018	11:10	1 Hour	Salmosan	200g
5	Bastaness	05811	12/27/2018	14:20	50 Mins	Salmosan	200g
6	Bastaness	05811	12/28/2018	14:30	50 Mins	Salmosan	200g
7	Bastaness	05811	12/29/2018	14:10	1 Hour	Salmosan	200g
8	Bastaness	05811	12/30/2018	13:40	50 Mins	Salmosan	200g
9	Djubawick	05811	1/22/2018	16:00	55 Mins	Salmosan	200g
10	Djubawick	05811	12/22/2018	13:40	55 Mins	Salmosan	100g

1							
	2018	Marine Harvest/Mowi					
2	Site	MCMS No.	Date	Time	Duration	Product	Amount
3	Colonsay	05998	6/15/2018	22:00	4 Hours	Azamethiphos	220g
4	Colonsay	05998	6/16/2018	06:00	4 Hours	Azamethiphos	220g
5	Colonsay	05998	6/16/2018	23:30	4 Hours	Azamethiphos	220g
6	Colonsay	05998	6/16/2018	16:00	6 Hours	Azamethiphos	220g
7	Colonsay	05998	6/17/2018	08:00	4 Hours	Azamethiphos	220g
8	Colonsay	05998	6/17/2018	21:00	3 Hours	Azamethiphos	220g
9	Colonsay	05998	6/17/2018	12:23	4 Hours	Azamethiphos	220g
10	Colonsay	05998	6/18/2018	05:40	4 Hours	Azamethiphos	220g
11	Colonsay	05998	18/06/2018	19:02	4 Hours	Azamethiphos	220g
12	Colonsay	05998	18/06/2018	16:36	4 Hours	Azamethiphos	220g
13	Colonsay	05998	19/06/2018	03:07	4 Hours	Azamethiphos	220g
14	Colonsay	05998	19/06/2018	20:56	4 Hours	Azamethiphos	220g
15	Colonsay	05998	19/06/2018	11:07	4 Hours	Azamethiphos	220g
16	Colonsay	05998	20/06/2018	11:37	4 Hours	Azamethiphos	220g
17	Colonsay	05998	20/06/2018	17:44	4 Hours	Azamethiphos	110g
18	Gorsten	06004	18/08/2018	15:55	30 Mins	Deltametrin	2.7g
19	Gorsten	06004	18/08/2018	15:55	30 Mins	Deltametrin	0.9g
20	Gorsten	06004	18/08/2018	11:50	30 Mins	Deltametrin	3.33g
21	Gorsten	06004	18/08/2018	11:50	30 Mins	Deltametrin	0.27g
22	Greshornish	04807	21/02/2018	13:28	1 Hour	Azamethiphos	200g
23	Greshornish	04807	23/02/2018	14:05	45 Mins	Azamethiphos	200g
24	Greshornish	04807	15/03/2018	20:53	1 Hour	Azamethiphos	200g
25	Greshornish	04807	21/03/2018	20:05	1 Hour	Azamethiphos	200g

Attachment #2:

19.0.1.xlsx						
	A	B	C	D	E	F
1	SPRI Site ID	Site Name	Licence	Company name	Azamethiphos (kgs)	Deltamethrin (kgs)
2	706	Aird Ardhleslaig	CAR/L/1002917	The Scottish Salmon Company Ltd	0.6	
3	1175	Ardcastle	CAR/L/1010775	The Scottish Salmon Company Ltd	0.1	
4	1105	Eilean Treanay	CAR/L/1003916	The Scottish Salmon Company Ltd	0.36	
5	2415	Eport Outer (Sgeir n Lolla)	CAR/L/1033617	The Scottish Salmon Company Ltd	0.24	
6	2484	Eughlam North	CAR/L/1082027	The Scottish Salmon Company Ltd		0.006
7	726	Kenmore Bay (Loch a Chraich)	CAR/L/1004153	The Scottish Salmon Company Ltd	0.2	
8	634	Plocrapol	CAR/L/1016553	The Scottish Salmon Company Ltd	2.66	0.01375
9	2538	Sgeir Dughall	CAR/L/1098675	The Scottish Salmon Company Ltd	0.6	
10	2324	Taranaish	CAR/L/1017374	The Scottish Salmon Company Ltd	1.1	0.02216
11	1857	Vacasay, Roag	CAR/L/1005041	The Scottish Salmon Company Ltd	1	
12	992	Vuia Beag	CAR/L/1015852	The Scottish Salmon Company Ltd	0.7	
13	2042	Vuia Mor	CAR/L/1011812	The Scottish Salmon Company Ltd	0.2	0.00416
14	2558	Corlarach	CAR/L/1108277	Grieg Seafood Shetland Ltd	0.4	
15	2417	Gob na Hoe	CAR/L/1033775	Grieg Seafood Shetland Ltd	0.7	
16	674	Leinish Bay	CAR/L/1002991	Grieg Seafood Shetland Ltd	1	
17	1159	North Voe	CAR/L/1002998	Grieg Seafood Shetland Ltd		0.0064
18	2464	Setterness North	CAR/L/1078468	Grieg Seafood Shetland Ltd	12.2	
19	1392	Setterness South	CAR/L/1005092	Grieg Seafood Shetland Ltd	0.72	
20	640	Linga (South of Linga)	CAR/L/1015763	Grieg Seafood Shetland Ltd	2.3	
21	1132	Swining Voe Site 3 (Collafirth Ness)	CAR/L/1003929	Grieg Seafood Shetland Ltd		0.0948
22	2560	Bastaness	CAR/L/1111048	Cooke Aquaculture Scotland	0.6	
23	892	Djuba Wick	CAR/L/1003873	Cooke Aquaculture Scotland	0.15	
24	2564	Colonsay	CAR/L/1110925	Marine Harvest (Scotland) Ltd	3.19	
25	955	Gorsten	CAR/L/1009968	Marine Harvest (Scotland) Ltd		0.0072
26	957	Greshornish	CAR/L/1002890	Marine Harvest (Scotland) Ltd	0.8	

Attachment #3:



Buidheann Dion
Àrainneachd na h-Alba

Our Ref: F0191198/
F0191091

If telephoning ask for
Alison Mackinnon

13 December 2019

Mr Don Staniford
salmonfarminokills@gmail.com

Dear Mr Staniford

REQUEST FOR INFORMATION – FORMAL REVIEW

This letter contains our response to your request for a Formal Review of F0191091, which has been handled under the reference number F0191198.

We confirm that we have applied the exemption under Section 39(2) of the Freedom of Information (Scotland) Act 2002 as we have determined that the information sought in your request was environmental information. The original request and this Formal Review have been handled under the terms of the Environmental Information (Scotland) Regulations 2004. (EIRs)

SEPA takes its obligations and responsibilities under the Freedom of Information (Scotland) Act 2002 and the Environmental Information (Scotland) Regulations 2004 very seriously. Feedback will be provided from this Review to relevant staff that where any shortcomings have been identified or lessons have been learned, these will be actioned in the handling of future requests.

The findings and outcome of this Formal Review are provided in Annex 1.

If you are not satisfied with our response to your request for Review, you can appeal, in writing, to the Scottish Information Commissioner, within six months of date of this response.

Scottish Information Commissioner
Kinburn Castle
Doubledykes Road
St Andrews
Fife
KY16 9DS
Telephone: 01334 464610
Fax: 01334 464611
Email: enquiries@itspublicknowledge.info
www.itspublicknowledge.info/appeal

Should you wish to appeal against the Scottish Information Commissioner's decision, you have the right to appeal to the Court of Session on a point of law only. Any such appeal must be made within 42 days after the date of intimation of the decision.

after the date of notification of the decision.



Chairman
Bob Downes
Chief Executive
Terry A'Hearn

SEPA Stirling Office
Strathallan House, Castle Business Park,
Stirling FK9 4TZ
tel 01786 457700 fax 01786 446885
www.sepa.org.uk - customer enquiries 03600 99 66 99

Your unique reference number for this Formal Review is F0191198. Please quote this in any future contact with us about your request.

If you have any queries in the meantime please contact me.

Yours sincerely

Alison Mackinnon

Alison Mackinnon
Data Protection Officer

Attachment #4:

Download [online here](#)

Includes:

B. - Commercial interests – Regulation 10(5)(e) of the EIRs – Question 6

Regulation 10(5)(e) states that a Scottish public authority may refuse to make environmental information available to the extent that its disclosure would, or would be likely to, prejudice substantially the confidentiality of commercial or

industrial information where such confidentiality is provided for by law to protect a legitimate economic interest.

The Formal Review Officer outlined the scope of exception at Regulation 10(5) (e) of the Environmental Information (Scotland) Regulations 2004.

The relevant section of the briefing prepared by the Office of the Scottish Information Commissioner was also consulted - <http://itspublicknowledge.info/Law/EIRs/EIRsExceptions.aspx>

The Formal Review Officer reported on the tests set down by the Scottish Information Commissioner on the application of Regulation 10(5) (e) of the EIRs. It was confirmed that details of the specified treatment were not publicly available and that they were commercial in nature.

Feedback had been sought from the third party who confirmed that disclosure of information would cause substantial prejudice to their commercial interests.

In the specific circumstances of this request, SEPA considers that the release of the correspondence and documentation would cause a substantial prejudice to the commercial undertaking and economic interest. SEPA therefore contends that the public interest in the release of the information is outweighed by the public interest in maintaining the exception under the terms of Regulation 10(5)(e) of the EIRs

Recommendation that information relating to the requested information should continue to be withheld, at this time, under the terms of Regulation 10(5) (e) of the Environmental Information (Scotland) Regulations 2004, after the application of the Public Interest Test, as noted above.

Attachment #5:

From: @gov.scot
Sent: 20 March 2019 12:59
To:
Subject: Wellboat Treatments 2018
Attachments: Wellboats - Treatments 2018.xls

Dear

Please find attached the spreadsheet detailing wellboat treatments at Marine Fish Farms during 2018, for forwarding to your SPRI team please.

Kind Regards

Marine Licensing Casework Manager
Marine Scotland - Marine Planning & Policy

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

Direct Line:

General Queries: +44 (0)300 244 5046

Email: @gov.scot

ms.marinelicensing@gov.scot

Website: <http://www.gov.scot/Topics/marine/Licensing/marine>

From: **Don Staniford** <salmonfarmingkills@gmail.com>
Date: Mon, Nov 11, 2019 at 2:47 PM
Subject: Review re. F:0191091
To: AccesstoInformation <foi@sepa.org.uk>

Please consider this a formal request for a review of F:0191091.

Could you please double-check your response which seems clearly inadequate and incomplete?

Scottish Salmon Watch has huge difficulty in believing that SEPA does not have information in relation to points 1-5.

For example, in the Scotland's Aquaculture database which Scottish Salmon Watch understands that SEPA has responsibility for it states that "NB This dataset does not include treatments carried out on wellboats. The full annual SPRI data returns inclusive of wellboat information can be found [here](#)":

http://aquaculture.scotland.gov.uk/data/fish_farms_monthly_biomass_and_treatment_reports.aspx

Scotland's aquaculture part of Scotland's environment

Home | Our Aquaculture | Map | Data | Resources | Glossary | Help |

[Complete our user survey](#)

Home > Data Search > Fish Farms Monthly Biomass and Treatment Reports

Search Results

Monthly Biomass & Treatment Reports > Report Month > From date: 01/01/1900 To date: 11/11/2019

Water Type: --All-- Local Authority: --All-- Seallice Treatment Used: --All--

[Apply Current Filters](#) [Show All Results](#) [Clear All Filters](#) [CSV Export](#)

NB This dataset does not include treatments carried out on wellboats. The full annual SPRI data returns inclusive of wellboat information can be found [here](#)

Sadly, SPRI data for 2018 is still not available (which is shocking in itself):
<https://www.sepa.org.uk/environment/environmental-data/spri/>

However, SEPA has surely inputted and accessed well boat data for 2017 (and perhaps for some or all of 2018) from Marine Scotland or other parties since 1 January 2018.

More specifically, there would surely be correspondence with Marine Scotland, the Scottish Government and other parties in relation to well boat data as presented via Scotland's Aquaculture and/or the SPRI.

Hence, please double-check your records and response to Scottish Salmon Watch's FOI dated 23 October 2019 which, inter alia, asked for:

Please provide information in relation to what quantities of effluent are discharged - including any data on discharges of toxic chemicals, diseased waters and other materials.

Please include any correspondence, emails, Cabinet Briefings, data, sampling results, testing and other information relating to salmon farming well boat discharges since 1 January 2018.

Finally, in relation to SEPA's refusal to provide information on Benchmark's CleanTreat which SEPA admits to possessing "a small amount of correspondence", Scottish Salmon Watch asks SEPA to reconsider your refusal.

SEPA admits to meeting Benchmark at least five times in 2018 and 2019:

We confirm that SEPA has attended meetings with Benchmark on 9 October 2018, 11 April 2019, 30 May 2019, 20 September 2019 and 30 September 2019

Please redact the names of the individuals by all means but refusing to disclose any information on those meetings flies in the face of Freedom of Information. SEPA is a publicly funded agency and surely it must be held publicly accountable. Please therefore provide the information requested.

Please provide a receipt for this review request.

Thanks,

Don Staniford

Director of Scottish Salmon Watch



Our Ref: F0191091

Don Staniford
salmonfarmingkills@gmail.com

If telephoning ask for:
Cara Everitt

11 November 2019

Dear Mr Staniford

REQUEST FOR INFORMATION

Thank you for your request, received by SEPA on 23 October 2019.

We have applied the exemption under Section 39(2) of the Freedom of Information (Scotland) Act 2002 as we have determined that the information sought in your request is environmental information. We are therefore handling your request under the terms of the Environmental Information (Scotland) Regulations 2004 (EIRs). In this case the public interest in maintaining this exemption and in dealing with the request in line with the requirements of the EIRs outweighs any public interest in disclosing the information under FOISA.

For ease of reference, your request is replicated below together with our response.

[1.] *Please provide information on the discharge of salmon farming well boats since 1 January 2018.*

[2.] *Please include details, maps, photos, grid references, licences and any other information relating to where, when, what and how salmon farming well boats discharge their effluents.*

[3.] *For example, there is apparently a marked/designated area off Oban where discharges take place. Please provide information relating to any designated places around Scotland where salmon farming well boats are permitted to discharge effluents.*

[4.] *Please provide information in relation to what quantities of effluent are discharged - including any data on discharges of toxic chemicals, diseased waters and other materials.*

[5.] *Please include any correspondence, emails, Cabinet Briefings, data, sampling results, testing and other information relating to salmon farming well boat discharges since 1 January 2018.*

We confirm that SEPA does not hold the requested information in 1-5 above. This information is therefore excepted under Regulation 10(4)(a) of the EIRs. The text of which is reproduced below;

(4) A Scottish public authority may refuse to make environmental information available to the extent that;-



Chairman
Bob Downes

Chief Executive
Terry A'Hearn

SEPA Stirling Office

Strathallan House, Castle Business Park,
Stirling FK9 4TZ

tel 01786 457700 fax 01786 446885

www.sepa.org.uk • customer enquiries 03000 99 66 99

(a) it does not hold that information when an applicant's request is received.

The exception in regulation 10(4)(a) is subject to the public interest test in regulation 10(1)(b) of the EIRs. As SEPA does not hold the information in question there is no conceivable public interest in requiring that the information be made available.

Under the terms of Regulation 9 of the EIRs, SEPA has a duty to provide advice and assistance, we advise that well boats are licenced by Marine Scotland. In accordance with Regulation 14(1)(b) of the EIRs, we advise you to contact Marine Scotland directly for this information. The contact details are; Marine Scotland Mailpoint 11 1B South Victoria Quay, Edinburgh, EH6 6QQ
marinescotland@gov.scot
<https://www.gov.scot/about/contact-information/how-to-request-information/>

[6.] Please include any information relating to CleanTreat and the treatment of well boats discharges including details of any meetings and correspondence with Benchmark and other companies. Please include information relating to "high level talks to facilitate trials of the [CleanTreat] system in Scotland".

SEPA holds a small amount of correspondence. This information is excepted under Regulation 10(5)(f) of the EIRs. The text of which is reproduced below;

(5) A Scottish public authority may refuse a request to make environmental information available to the extent that its disclosure would, or would likely to prejudice substantially-

(f) the interests of the person who provided the information where that person-

(i) was not under, and could not have been put under, any legal obligation to supply the information;

(ii) did not supply it in circumstances such that it could, apart from these Regulations, be made available; and

(iii) has not consented to its disclosure

The release of the information in question would be likely to prejudice substantially the third party. The Public Interest Test was carried out in relation to the information to be withheld under Regulation 10(5)(f) of the EIRs. In this case, we recognise that Regulation 10(2)(b) requires SEPA to apply a presumption favour of disclosure. The public interest in favour of disclosure is outweighed by that in favour of withholding. Requests for such information are considered by SEPA on a case by case basis. In this case, it was determined that the public interest would not be served by the release of the information at this time.

We confirm that SEPA has attended meetings with Benchmark on 9 October 2018, 11 April 2019, 30 May 2019, 20 September 2019 and 30 September 2019

If you are not satisfied with our response, you have up until 10 January 2020 to request a formal review from SEPA at:

Access to Information

SEPA

Strathallan House

Castle Business Park

Stirling

FK9 4TZ

Email: foi@sepa.org.uk

If you are still not satisfied, you can appeal to the Scottish Information Commissioner.

www.itspublicknowledge.info/appeal

Your unique reference number is F0191091. Please quote this in any future contact with us about your request.

If you have any queries in the meantime, please contact me.

Yours sincerely



Cara Everitt
SEPA Access to Information team

From: **FOI Helpdesk** <FOI.Mail@sepa.org.uk>
Date: Thu, Oct 24, 2019 at 10:17 AM
Subject: SEPA Acknowledgement - [F:0191091]
To: <Salmonfarmingkills@gmail.com>

Dear Mr Staniford

REQUEST FOR INFORMATION - ACKNOWLEDGEMENT

We are writing to acknowledge receipt of your request, received by SEPA on 23/10/2019, in which you asked for the following information:

Please provide information on the discharge of salmon farming well boats since 1 January 2018.

Please include details, maps, photos, grid references, licences and any other information relating to where, when, what and how salmon farming well boats discharge their effluents.

For example, there is apparently a marked/designated area off Oban where discharges take place. Please provide information relating to any designated places around Scotland where salmon farming well boats are permitted to discharge effluents.

Please provide information in relation to what quantities of effluent are discharged - including any data on discharges of toxic chemicals, diseased waters and other materials.

Please include any correspondence, emails, Cabinet Briefings, data, sampling results, testing and other information relating to salmon farming well boat discharges since 1 January 2018.

Please consider this a FOI request under the relevant FOI and Environmental Regulations.

Please acknowledge receipt.

Please provide the information electronically.

Addendum:

Please include any information relating to CleanTreat and the treatment of well boats discharges including details of any meetings and correspondence with Benchmark and other companies. Please include information relating to "high level talks to facilitate trials of the [CleanTreat] system in Scotland".

Fish Farmer reported on 20 August 2019:

<https://www.fishfarmermagazine.com/health/awards-treat-as-scottish-firm-scoops-top-prize/>

"However, there is some impatience among Scottish salmon farmers over bottlenecks in the regulatory system that have so far prevented them from trialling CleanTreat in Scotland. Marshall said his company had been approached by all the Scottish producers, interested in deploying CleanTreat at their farms, and he hoped there would be Scottish trials soon. 'The target was for the end of this year but, realistically, it will be next year,' he said."

Fish Farmer reported on 23 August 2019: <https://www.fishfarmermagazine.com/aquar-nor/scotland-must-get-act-together-say-prize-winning-pioneers/>

"THE team behind the Scottish invention CleanTreat, which won the much prized Aqua Nor Innovation Award this week, have held high level talks to facilitate trials of the system in Scotland..... Scottish Rural Economy minister Fergus Ewing, in Norway to witness Benchmark beat off stiff Norwegian competition, said later that he was proud of the Scottish aquaculture industry's achievements."

The Clean Treat system was the subject of various FOIs in 2018:

<https://www.gov.scot/publications/foi-18-00985/>

<https://www.gov.scot/publications/foi-18-01265/>

And in 2019:

<https://www.gov.scot/publications/foi-19-01398/>

Scottish Salmon Watch published a media backgrounder in October 2018:

<https://donstaniford.typepad.com/files/media-backgrounder-toxic-chemical-use-via-well-boats-oct-2018.pdf>

Your request will now be forwarded to the relevant business area(s) to search for the requested information. Your request will be answered promptly, and within twenty working days of the date your request was received – in this case no later than 20/11/2019.

Please note, the business area(s) holding the information may need further information from you to locate the information sought once they have received the request, and you will be contacted again should this be necessary.

Your unique reference number is F0191091. Please quote this in any future contact with us about your request.

This acknowledgement has been sent electronically to Salmonfarmingkills@gmail.com. If you would like a hard copy signed letter please do not hesitate to contact us.

If you have any queries in the meantime please contact us.

Yours sincerely

SEPA Access to Information team

Email: foi@sepa.org.uk

Tel: 01786 457700

From: Don Staniford <salmonfarmingkills@gmail.com>

Date: Wed, Oct 23, 2019 at 6:31 AM

Subject: FOI re. discharges of well boats since 1 January 2018

To: AccesstoInformation <foi@sepa.org.uk>

Please provide information on the discharge of salmon farming well boats since 1 January 2018.

Please include details, maps, photos, grid references, licences and any other information relating to where, when, what and how salmon farming well boats discharge their effluents.

For example, there is apparently a marked/designated area off Oban where discharges take place. Please provide information relating to any designated places around Scotland where salmon farming well boats are permitted to discharge effluents.

Please provide information in relation to what quantities of effluent are discharged - including any data on discharges of toxic chemicals, diseased waters and other materials.

Please include any correspondence, emails, Cabinet Briefings, data, sampling results, testing and other information relating to salmon farming well boat discharges since 1 January 2018.

Please consider this a FOI request under the relevant FOI and Environmental Regulations.

Please acknowledge receipt.

Please provide the information electronically.

Thanks,

Don Staniford

Director of Scottish Salmon Watch

From: Don Staniford <salmonfarmingkills@gmail.com>

Date: Wed, Oct 23, 2019 at 7:34 AM

Subject: Addendum: Re: FOI re. discharges of well boats since 1 January 2018

To: AccesstoInformation <foi@sepa.org.uk>

Please include any new information relating to CleanTreat and the treatment of well boats discharges including details of any meetings and correspondence with Benchmark and other

companies. Please include information relating to "high level talks to facilitate trials of the [CleanTreat] system in Scotland".

Fish Farmer reported on 20 August 2019:

<https://www.fishfarmermagazine.com/health/awards-treat-as-scottish-firm-scoops-top-prize/>

"However, there is some impatience among Scottish salmon farmers over bottlenecks in the regulatory system that have so far prevented them from trialling CleanTreat in Scotland. Marshall said his company had been approached by all the Scottish producers, interested in deploying CleanTreat at their farms, and he hoped there would be Scottish trials soon. 'The target was for the end of this year but, realistically, it will be next year,' he said."

Fish Farmer reported on 23 August 2019: <https://www.fishfarmermagazine.com/aquar-nor/scotland-must-get-act-together-say-prize-winning-pioneers/>

"THE team behind the Scottish invention CleanTreat, which won the much prized Aqua Nor Innovation Award this week, have held high level talks to facilitate trials of the system in Scotland..... Scottish Rural Economy minister Fergus Ewing, in Norway to witness Benchmark beat off stiff Norwegian competition, said later that he was proud of the Scottish aquaculture industry's achievements."

The Clean Treat system was the subject of various FOIs in 2018:

<https://www.gov.scot/publications/foi-18-00985/>

<https://www.gov.scot/publications/foi-18-01265/>

And in 2019:

<https://www.gov.scot/publications/foi-19-01398/>

Scottish Salmon Watch published a media backgrounder in October 2018:

<https://donstaniford.typepad.com/files/media-backgrounder-toxic-chemical-use-via-well-boats-oct-2018.pdf>

Thanks,

Don

[7] In July 2019, the Scottish Government [disclosed some information on CleanTreat but denied other information citing the "confidentiality of commercial or industrial information"](#):



Trial of Benchmark's Clean Treat system: EIR release

Published: **5 Jul 2019**

Directorate: [Marine Scotland Directorate](#)

Part of: [Marine and fisheries](#), [Public sector](#)

Information request and response under the Environmental Information (Scotland) Regulations 2004.

FOI reference: FOI/19/01398

Date received: 5 Jun 2019

Date responded: 3 Jul 2019

Information requested

Further to the Cabinet Secretary's comments in the Scottish Parliament just now (online via <https://www.scottishparliament.tv/> [↗](#)), please provide information on Benchmark's CleanTreat system.

Regulation 10(5) (e) – the confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest

An exception under regulation 10(5) (e) (confidentiality of commercial or industrial information) of the EIRs applies to some of the information you have requested. This exception applies because disclosure of this particular information would, or would likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We recognise that there is a public interest in disclosing information as part of open and transparent and accountable government, and to inform public debate. However, there is a greater public interest in protecting the commercial interests of companies when substantial harm can be made to their commercial interests.



[FOI-19-01398 Information released part1](#)

48 page PDF | 1.7 MB

[Download](#)



[FOI-19-01398 Information released part 2](#)

41 page PDF | 2.1 MB

[Download](#)

FOI [documents disclosed \(Part 1\)](#) included:

From: [Redacted]
Sent: 30 April 2019 22:19
To: [Redacted]
Cc: [Redacted]
Subject: Commercially sensitive and strictly confidential: Draft minutes for review and final minutes from meeting 1
Attachments: [Redacted]

Dear [Redacted]

Please find attached the draft minutes from our meeting in April for your review and additions. Could ask you to circulate the minutes within your department as you see fit. Please could you return your comments to me as soon as possible.

Also attached are the final minutes from the meeting last October for your records.

Kind Regards

[Redacted]

[Redacted]

Animal Health Division
[Redacted]



**Benchmark
Animal Health**

Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

From: [Redacted]
Sent: 08 February 2019 17:57
To: [Redacted]
Subject: RE: Benchmark - Cleantreat

Thanks for the discussion [Redacted]

I mentioned that we (MS-LOT) would arrange a meeting with SEPA and policy officials. I shall set this up in due course.

In order to better inform the process, we discussed the need for some further info namely:

1. The permits required in Norway for your trial there
2. More detail on the modelling you have carried out to date.
3. More detail on the proposed activity in the marine area (i.e.- what is proposed to be deposited in the sea?)
4. Sensitivity of the testing to LOD etc. to understand what the output might contain.

[Redacted]

I look forward to hearing from you and I shall look to set up a meeting soon.

Kindest regards

[Redacted]

RESTRICTED - ADVICE TO MINISTERS

From: [Redacted]
Marine Scotland Licensing Operations Team (MS-LOT)
Marine Planning and Policy (MPP)
07 December 2018

Cabinet Secretary for Rural Economy

Purpose

1. **To update the Cabinet Secretary on a meeting held with Scottish Environment Protection Agency (SEPA), Marine Scotland-Licensing Operations Team (MS-LOT), the Veterinary Medicines Directorate (VMD) and Benchmark Animal Health Ltd (BAHL) in relation to CleanTREAT [REDACTED] and confirm that the advice on the regulatory framework has been given.**

Priority

2. Routine.

Background

3. You recently met with BAHL to discuss the new sea lice treatment system "CleanTREAT" and chemical treatment [REDACTED] and requested an update on recent discussions with regulators.
4. [Redacted]

4. [Redacted]

5. [Redacted]

6. [Redacted]

7. [Redacted]

8. [Redacted]

9. [Redacted]

10. [Redacted]

11. The recently published REC committee's Salmon farming in Scotland report calls for SEPA and the Scottish Government to consider the environmental impact of other medicines by the industry and recognises the need to ensure that the licensing regime for medicines is fit for purpose and sufficiently robust to prevent environmental damage or impact on other species.

12. [Redacted]

13. SEPA and MS are both members of the licensing regime and medicine use subgroup of the Farmed Fish Health Framework. The Subgroup will consider how best to directly engage with pharmaceutical companies and innovative technologies, like the BAML proposals, at its next meeting.

14. [Redacted]

15. [Redacted]

Recommendation

16. The Cabinet Secretary is asked to note that MS-LOT continues discussions with BAML and is awaiting further information from the company and that the licensing regime and medicine use subgroup of the Farmed Fish Health Framework will look at the best ways of engagement with innovative technologies and new treatments at its next meeting.

[Redacted]

Marine Licensing and Consenting Section Head

MPP

Tel: [Redacted]

From: [Redacted]
Sent: 07 December 2018 15:19
To: [Redacted]

Cc: [Redacted]

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

PS/Cabinet Secretary for the Rural Economy, Cabinet Secretary for the Environment, Climate Change and Land Reform, Minister for Rural Affairs and the Natural Environment,

Please see attached a brief (ref No. 2 below) requested by Cabinet Secretary for the Rural Economy following a meeting with Benchmark Animal Health Ltd (BAHL) on 28 Wednesday November in relation to the authorisations required for Benchmark to progress with their proposals for a new treatment chemical and technology for the control of sea lice in Scottish salmon farms.

Officials will continue to progress discussions with BAHL in respect of the current proposal and take forward the strategic aspects raised through the 'licensing regime and medicine use subgroup' of the Farmed Fish Health Framework.

Kindest regards,

[Redacted]

From:[Redacted]
Sent: 29 November 2018 10:02
To:[Redacted]
Cc:[Redacted]
Subject: Aquaculture - CleanTreat

Hi [Redacted]

1. I understand [Redacted] asked on Mr Ewing's request for details about outstanding CAR applications – grateful for an update please.
2. We have also had a request from Mr Ewing for information about the situation regarding the following:

"Mr Ewing would like advice from SEPA + MS LOT on the current progress of Benchmark's application for field trials of CleanTREAT + [Redacted] in Scotland. For those who are not aware of the system - CleanTREAT is a system which 'cleans' the sea lice treatment chemical (in this case a new product [Redacted]) from water before the water is discharged. <http://www.benchmarkplc.com/articles/cleantreat-by-benchmark/> .

[Redacted] outlined that the company wish to push forward with trials in Scotland (trials already happening in Norway) – and that Marine Harvest [Redacted] as partner wants to get this off the ground as soon as possible. It was claimed that neither SEPA nor MS LOT could confirm to the company who the regulatory lead on their application would be. [Redacted] said that progress with regulators was slow and that they wished to speed things up. Hence Mr Ewing's request for immediate advice."

Happy to discuss – by phone if appropriate

Thanks
[Redacted]
[Redacted]

An undated Annex to documents marked 'Restricted - Advice to Ministers' included:

Annex D
Company Profile - Benchmark

CleanTreat

- A highly innovated system developed to tackle sea lice. The CleanTreat purification system, cleanses the treatment water after the delousing fish in well-boats. The system removes all medicinal components, returning clean water into the sea. A modular, portable and scalable system.
- Successful commercial scale trials have been conducted in Norway with 99% efficacy, excellent fish welfare and no environmental impact. Benchmark believe it has the potential to address the industry-wide need to eliminate discharge of medicinal residues from treatment water.
- Norwegian agencies have been strongly supportive of CleanTreat's development and it will be the first market for commercial roll-out. The group is now focusing on the next development phase of CleanTreat and preparing field trials for new markets. Scotland, Canada and Chile are all being considered.
- This offers a significant opportunity for Scotland and has the potential to have a major impact on the Scottish aquaculture sector's efforts to tackle sea lice. BMK have had initial talks with SEPA on the regulatory process.

Engagement

- Benchmark Holdings PLC is account managed. A 'Team Scotland' approach is taken with the group.
- [Redacted] SE, SDI and SAIC are also represented on the team. SEPA has been invited to join the 'team'. The development agencies have engagement across the group's various Scottish operations.
- In March 2019, [Redacted] gave a CleanTreat presentation to the Account Team to explore 'how Scotland can support BMK to move to the next phase of CleanTreat'. Key points arising from the meeting were:

Annex D Company Profile - Benchmark

- Scotland is the preferred next market, but dependent on the appropriate conditions and support;
- Also in talks with Canada and Chile and they're working hard to secure CleanTreat;
- BMK's decision on Scotland will be heavily dictated by the regulatory process and approach;
- CleanTreat also presents opportunities for Scottish supply chain e.g. well-boat operators, engineering companies, academia, etc.;
- Key technical challenges need to be addressed to enable continued development of CleanTreat;
- Talks are ongoing with BMK to explore HIE R&D support options for CleanTreat R&D developments. Initial project costs of [Redacted] cited. The Account Team are also working to connect [Redacted] with the relevant Scottish companies and engage with aquaculture policy discussions such as FFHF.

The above document appears to be the same as:

Highlands and Islands Enterprise

In Confidence

Fergus Ewing, Cabinet Secretary for the Rural Economy
Briefing Paper – Benchmark Holdings PLC
16/04/2019

1. Introduction

The purpose of this paper is to provide Mr Ewing a briefing in advance of attendance at the Aquaculture Supply Chain Summit.

2. Company Background

Benchmark Holdings PLC is a UK registered company, operating in 27 countries and employs over 1,000 people. [Redacted] The company is listed on the London AIM with 2018 group revenue at £151.5m and EBITDA of £17m.

The group combines biology and technology to develop innovative products to improve yield, quality and animal health/welfare for the global aquaculture sector. They aim to be aquaculture's leading provider of solutions in genetics, health and specialist nutrition. It has four divisions: Genetics, Advance Nutrition, Animal Health & Knowledge Services and a broad portfolio of products such as salmon eggs, live feed and sea lice treatments.

After a period of rapid expansion, the group holds global leading market positions in genetics and advanced nutrition. Key highlights from 2018 include its JV with AquaChile in salmon genetics and commercial-scale-trials of the sea lice treatment, CleanTreat. The BMK group is now focused on organic growth and capitalising on the strong market growth these opportunities present.

They employ c.70 people at it Scottish sites, which service the aquaculture industry. These include:

- FAI Ardtoe - R&D and Trials Unit Facility;
- FAI Aultbea & FAI Shetland – Cleanerfish production facilities;
- Fish Vet Group Ltd, Inverness – veterinary services, diagnostic technologies & environmental monitoring;
- BMK Animal Health, Edinburgh – development and supply of animal health medicines.

3. Brief Biography

[Redacted] . He leads the Group's R&D teams working on the development, sales and marketing of new animal health vaccines, medicines and biocides. He is leading the development and roll-out of CleanTreat.

4. Important Points to Note

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

CleanTreat

A highly innovated system developed to tackle sea lice. The CleanTreat purification system, cleanses the treatment water after the delousing fish in well-boats. The system removes all medical components, returning clean water into the sea. A modular, portable and scalable system.

Successful commercial scale trials have been conducted in Norway with 99% efficacy, excellent fish welfare and no environmental impact. Benchmark believe it has the potential to address the industry-wide need to eliminate discharge of medicinal residues from treatment water.

Norwegian agencies have been strongly supportive of CleanTreat's development and it will be the first market for commercial roll-out. The group is now focusing on the next development phase of CleanTreat and preparing field trials for new markets. Scotland, Canada and Chile are all being considered.

This offers a significant opportunity for Scotland and has the potential to have a major impact on the Scottish aquaculture sector's efforts to tackle sea lice. BMK have had initial talks with SEPA on the regulatory process.

5. Engagement

Benchmark Holdings PLC is account managed. A 'Team Scotland' approach is taken with the group. [Redacted] . SE, SDI and SAIC are also represented on the team. SEPA has been invited to join the 'team'. The development agencies have engagement across the group's various Scottish operations.

In March 2019, [Redacted] gave a CleanTreat presentation to the Account Team to explore 'how Scotland can support BMK to move to the next phase of CleanTreat'. Key points arising from the meeting were:

- Scotland is the preferred next market, but dependent on the appropriate conditions and support;
- Also in talks with Canada and Chile and they're working hard to secure CleanTreat;
- BMK's decision on Scotland will be heavily dictated by the regulatory process and approach;
- CleanTreat also presents opportunities for Scottish supply chain e.g. well-boat operators, engineering companies, academia, etc.;
- Key technical challenges need to be addressed to enable continued development of CleanTreat;

Talks are ongoing with BMK to explore HIE R&D support options for CleanTreat R&D developments. Initial project costs of [Redacted] cited. The Account Team are also working to connect [Redacted] with the relevant Scottish companies and engage with aquaculture policy discussions such as FFHF.

[Redacted]

16 April 2019

The documents also included:

Notes from Presentations at Aquaculture Conference - May 2018

[Redacted]

__ [Redacted]

[Redacted]

CleanTreat – [Redacted]

- Link to website with video of process and more information - <http://www.benchmarkplc.com/articles/cleantreat-by-benchmark/>
- System removes all medicinal treatments, organic matter down to 20µm and dead/moribund sea lice
- Used for closed containment treatments only

- Fish are rinsed and the treatment water is returned to the well
- 20µm drum filter for organic matter followed by 3 step purification process
- Water is tested after every stage and prior to release (down to parts per trillion)
- Treatment water can be transferred to a support boat for the purification process to allow the wellboat to continue treatments
- Some sites have to treat over an extended period due to low discharge consents, but this system would allow treatments to be carried out over a reduced time as the medicine has been removed from the water before discharge
- As all product can be removed by the system it should be futureproof for new medicines
- Some medicines are not licensed as the environmental impact is too great, but they have a good efficacy and are not harmful to the fish. This system would allow these medicines to be used as there would be no discharge

T2 (a)

Keeping abreast of sector growth through innovation & collaboration

The role of innovation & collaboration

We believe regulators need to 'interpret' innovation to reflect opportunities
Therefore we must develop a capacity for trial and research in the real world

We believe regulators/government need to engage early and in an ongoing way with industry
Therefore we must create opportunities for early engagement
*e.g. SEPA/MS – no follow-up in six months vs. in Norway they speak weekly

SWOT challenge area/opportunity identified: INFLUENCING REGULATION

We could engage more intelligently with regulators
To do this, we would need to understand what regulators need and why they need it
This would be helped by a deeper grasp of the roles and responsibilities of different regulatory bodies

We could educate and inspire regulators
To do this, we would need to organise a study visit to other regulators in different sectors and jurisdictions
This would be helped by an Aqua Nor plan for August 2019 → SAIC + SSPO + HIE + SDI → learning journey, Aquavision study trip June 2020

We could take regulation to the field (e.g. CleanTreat)
To do this, we would need to support collaboration around innovation in a 'safe space' (e.g. SAIC, industry & public sector)

Contributors[Redacted]

1. Benchmark's new technology for salmon health ? the CleanTreat system - is a ground-breaking cleaning system that removes medicines from salmon treatment water prior to release back into the sea. The system, which has had much of the initial development work in Scotland at our facility at Ardtoe, has been successfully undergoing extensive field trials in Norway and I wanted to bring you up to speed on the exciting progress we have made to date. As you know, we believe this is a game changing technology for the industry, and for its regulatory bodies, as it allows fish exposed to a disease challenge access to a full range of effective medicines but, for the first time, with no environmental impact. We are now in a position to apply for field trials in Scotland and would like to brief you on these proposals.

Best regards,

██████████

[Redacted]

[signature_697693769]

Benchmark House, 8 Smithy Wood Drive, Sheffield, S35 1QN, UK
EMAIL.

From:
Sent: 13 December 2017 14:01
To:
Cc:
Subject: RE: ██████████ sea lice treatment

Hi

Regarding CleanTreat, this water purification system was presented at a SSPO meeting last week – again, [Redacted]

Interestingly, it was mentioned that the shipping container-based modules would need to be multiplied up to enable treatment of commercial scale water volumes. As I understood things, this would in turn need a secondary vessel alongside the well boat. Finally, it was mentioned that initial discussion have been had with SEPA, but no indication as to how advanced these are.

I hope this is of some help!

Best regards,

██████████

[Redacted]

Scottish Aquaculture Innovation Centre
[Redacted]

(w) scottishaquaculture.com [Connect+Collaborate](#)

Further documents were [disclosed in July 2019 via Part 2](#) - including:

From: [Redacted]
Sent: 07 December 2018 11:28
To: [Redacted]
Cc: [Redacted]

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

Attachments: Cab Sec brief - benchmark - Dec 2018.docx

■■■■ - thanks. Happy in large part, but I've suggested downplaying the references to wellboat discharge licensing moving to SEPA as it shouldn't affect consideration of this proposal under the current system (and any suggestion that it might may well be seized on).

Regards, ■■■■

From: [Redacted]
Sent: 07 December 2018 11:43
To: [Redacted]
Cc: [Redacted]

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

■■■■

Thanks for this, which is very clear. The only aspect I thought we might add, was that we would be directly in touch with Norway, to find out exactly what is being tested there, what science is underway, and when they might be reporting back. While this does not directly impact our decision making, I think it sends out a positive message that we are looking at international comparitors and work, with a view to being able to move as quickly as possible,

■■■■

From: [Redacted]
Sent: 06 December 2018 09:00
To: [Redacted]
Cc: [Redacted]
Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat

■

Many thanks for sharing.

I agree it would be worth referencing both the report and the focus on medicine use (see below) but also that the REC report said 'The Committee recognises the need to ensure that the licensing regime for medicines is fit for purpose and sufficiently robust to prevent environmental damage or impact on other species. It notes and welcomes the Fish Health Framework workstream which is dedicated to the licensing of fish treatment.'

RECOMMENDATION 32 The publication of this research leaves the Committee in no doubt that effective regulation of medicine used by the farmed salmon industry is a requirement. In this regard, it welcomes the action by SEPA to the UK Technical Advisory Group (UK TAG) to make recommendations to the Scottish Government on new environmental standards for Emamectin Benzoate. It also calls on SEPA and the Scottish Government to similarly consider the environmental impact of other medicines by the industry. (see paragraph 293)

For now the key issue is around the text at your para 8 and I have offered a few suggested changes below.

'Legislative Framework – BAHL raised with the Cabinet Secretary that they were unclear of applicable legislation following the call. However the position for now is very clear. MS has been the licensing authority for wellboat discharges for the last 8 years. However, and as the Cabinet Secretary will be aware from the discussions at the Aquaculture Industry Leadership Group, Marine Scotland have been actively looking at moving forward on the recommendation from the 2016 'Independent review of Aquaculture Consents', which looked at the licensing role for wellboat discharge moving to SEPA. That recommendation has raised some challenges but is still under active consideration and we are hopeful close to a conclusion. The legislative framework has subsequently been clarified to BAHL by MS and an offer has been made to further discuss if they are not clear.'

I am not sure of the wider benefits of a presentation to the sub group and what expectations that might bring with it, but that is just an observation.

I suggest you address to both Cab Secs.

Regards

In June 2018, the Scottish Government [disclosed information on chemical use via well boats from 2010 to 2017](#):



[Home](#) > [Publications](#) >

PUBLICATION - FOI/EIR RELEASE

Wellboats chemical licensing and related database information: EIR release

Published: **2 Jul 2018**

Directorate: [Marine Scotland Directorate](#)

Part of: [Marine and fisheries](#), [Public sector](#)

Information request and response under the Environmental Information (Scotland) Regulations 2004.

FOI reference: FOI/18/01265

Date received: 1 May 2018

Date responded: 28 June 2018

Response

See below a link to most of the information you requested:

<https://www.dropbox.com/sh/a96fujp5m3kkgkm/AADwOgnak7P9a88i-USwM87Ia?dl=0>

In April 2018, the Scottish Government [disclosed some information on CleanTreat](#):



[Home](#) > [Publications](#) >

PUBLICATION - FOI/EIR RELEASE

Correspondence regarding chemical usage in salmon farming: EIR release

Published: **17 May 2018**

Directorate: [Marine Scotland Directorate](#)

Information request and response under the Environmental Information (Scotland) Regulations 2004.

FOI reference: FOI/18/00985

Date received: 27 March 2018

Date responded: 23 April 2018

Information requested

Information requested on the use of chemicals via well boats including the 'Clean Treat' system since 1 January 2017. Please include data on the use of Azamethiphos, Deltamethrin, Hydrogen Peroxide and any other chemicals used via well boats. Please include correspondence with salmon farming and chemical companies (including Benchmark - the manufacturer of 'Clean Treat'), Government agencies such as SEPA and SNH and internal Scottish Government correspondence. Please include discussions regarding the 'Clean Treat' system in particular and the treatment, capture and disposal of chemicals used via well boats.



[001#2_Redacted.pdf](#)

6 page PDF | 5.2 MB

[Download](#)



[003#2.pdf](#)

5 page PDF | 87.6 kB

[Download](#)



[Copy of 002.xls](#)

XLS | 236.0 kB

[Download](#)

From: [Redacted]

Sent: 13 December 2017 08:59

To: [Redacted] @bmkanimalhealth.com

Subject: Ectosan / CleanTreat

Hi [Redacted]

I work in the fish and shellfish health policy division of Scottish Government. I have inherited your business card from a colleague who left our unit at the start of this year^[Redacted].

I noted the recent article on Ectosan in fish farming expert with interest. I am aware that trials are ongoing, however I was hoping you might be able to give me some further information? Are you able to give an update on the status of trials in Norway? (for example, are you currently going through the authorisation process?)

I would also be interested to know if the CleanTreat system is already in use in Norwegian aquaculture.

Grateful for any info you can provide

Best regards

[Redacted]

Marine Scotland – Performance, Aquaculture and Recreational Fisheries

Tel: [Redacted]

E-mail [Redacted] @gov.scot

Web: <http://www.scotland.gov.uk/marinescotland>

Mail: Scottish Government, 1B North, Victoria Quay, Edinburgh EH6 6QQ

From:[Redacted] @gov.scot]
Sent: 13 December 2017 11:13
To:[Redacted] @scottishaquaculture.com>
Cc:[Redacted] @gov.scot
Subject: Ectosan sea lice treatment

Morning [Redacted]

I am sure you are already aware of the article <https://www.fishfarmingexpert.com/news/new-lice-bath-100-effective-and-pollution-free/> but I wondered if you had any further readout around this particular innovation which on face value could be a significant game-changer. As I recall, Benchmark are an industry member of SAIC.

Regards

[Redacted]

[Redacted]

[Marine Scotland](#)

Scottish Government | Area 1-B North | Victoria Quay | EH6 6QQ

T:[Redacted]
[Redacted]

From:[Redacted] [Redacted]
Sent: 13 December 2017 14:01
To:[Redacted]
Cc:[Redacted]
Subject: RE: Ectosan sea lice treatment

Hi [Redacted]

Thanks for the Ectosan press release.

I note that Benchmark describe Ectosan as a follow on product to Salmosan. There's no publicly available on active ingredients, but I wonder if it's also azamethiphos-based, with the associated regulatory controls and need to avoid sea lice resistance, etc?

Regarding CleanTreat, this water purification system was presented at a SSPO meeting last week – again, no details provided on how the tech works, which made some of the audience a bit sceptical. Interestingly, it was mentioned that the shipping container-based modules would need to be multiplied up to enable treatment of commercial scale water volumes. As I understood things, this would in turn need a secondary vessel alongside the well boat. Finally, it was mentioned that initial discussion have been had with SEPA, but no indication as to how advanced these are.

I hope this is of some help!

Best regards,

[Redacted]

[Redacted]

[Redacted]

Scottish Aquaculture Innovation Centre

(t)[Redacted] (m)[Redacted] (w) scottishaquaculture.com [Connect+Collaborate](#)

From: [Redacted] (MARLAB)
Sent: 14 December 2017 10:17
To: [Redacted]
Subject: RE: Ectosan sea lice treatment

On the original topic – Benchmark presented on the Cleantreat system – in principle (if as effective as is presented) it is a good, if expensive, solution to discharge consent for bath treatments. If it is used as suggested it could remove the rate limiting factor of discharge consent for bath treatments – however, I'm not sure that there is sufficient wellboat capacity to use it as suggested.

Happy to discuss further.

[Redacted]
[Redacted]

Marine Scotland | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Tel: [Redacted]
Mobile: [Redacted]

www.gov.scot/marinescotland

[8]



Don Staniford

By email: salmonfarmingkills@gmail.com

Our Ref: SIR157633/A3134488

19 December 2019

Dear Mr Staniford

Information Request – BMK08 and Ectosan since 1 January 2018

Thank you for your information request, which we received on 5 December 2019. We have considered your request under the Environmental Information (Scotland) Regulations 2004 ('the EIRs').

Your Request

"Please provide information on BMK08 and Ectosan (which may be one of the same) since 1 January 2018.

Please consider this a request for information under the relevant FOI and Environmental Information regulations."

Our Response

We have carried out a detailed search of the information we hold, and we do not have any information, that meets the terms of your request. We have not had any correspondence on the subject of BMK08 and/or Ectosan since 1 January 2018. I therefore need to explain that EIRs Regulation 10(4)(a) (Information not held) applies to your request on this occasion.

How We Handled Your Request

We believe you have asked for environmental information as defined in the Environmental Information (Scotland) Regulations 2004 ('the EIRs'), so we are dealing with your request under those regulations. To be able to use the EIRs, we must apply an exemption under section 39(2) of the Freedom of Information (Scotland) Act 2002 ('FOISA'). The Scottish Information Commissioner's guidance recommends that public authorities apply this exemption to environmental information and handle requests under the EIRs.

If you would like to find out more about the access to information legislation, there is a guidance booklet available on the Scottish Information Commissioner's website:

<http://www.itspublicknowledge.info/nmsruntime/saveasdialog.aspx?IID=5487&SID=5024>.

Review and Appeal

I hope this information meets your requirements, but if you are dissatisfied with how we have responded to your information request, please write to us within 40 working days explaining

Scottish Natural Heritage, Battleby, Redgorton, Perth, PH1 3EW
Tel 01738 444177 Fax 01738 458611 www.nature.scot

your concerns. You can contact us at Battleby, Redgorton, Perth, PH1 3EW or email us at FOI@nature.scot. We will carry out a review of our response and contact you with our findings within 20 working days.

If you are not satisfied following this, you can make an appeal to the Scottish Information Commissioner within 6 months. The Scottish Information Commissioner can be contacted at:

Scottish Information Commissioner
Kinburn Castle
Doubledykes Road
St Andrews
Fife
KY16 9DS

Online appeal service: www.itspublicknowledge.info/Appeal

Website: <http://www.itspublicknowledge.info/>

Telephone: 01334 464610

Yours sincerely

Sharon Phipps

Sharon Phipps
Information Officer
foi@nature.scot

[9]

From: **Don Staniford** <salmonfarmingkills@gmail.com>
Date: Thu, Dec 19, 2019 at 8:22 PM
Subject: Re: FORMAL REVIEW RESPONSE - F0191198
To: Goodheir, Jennifer <Jennifer.Goodheir@sepa.org.uk>

Cc: Access to Information Enquiries <FOI.Mail@sepa.org.uk>, Mackinnon, Alison
<Alison.Mackinnon@sepa.org.uk>

In the spirit of avoiding a time-consuming appeal to the Scottish Information Commissioner do you think SEPA could re-consider its refusal to disclose information on CleanTreat via F0191198?

SEPA's blanket refusal contrasts markedly with FOI disclosures on CleanTreat by the Scottish Government which although imperfect and substantially redacted do at least provide specific information.

In fact, the Scottish Government has even disclosed information relating to SEPA including emails and letters to and from SEPA via [FOI-19-02443](#) (19 December 2019); [FOI/19/01398](#) (3 July 2019) and [FOI-18-00985](#) (23 April 2018). Please see attached Appendix for specific details.

Finally, SEPA should be aware of the recent ruling in November 2019 by the Scottish Information Commissioner ([Decision 160-2019](#)) which forced Scottish Ministers to disclose information on the provenance of 'Scottish' salmon. "In all the circumstances, the Commissioner cannot accept that disclosure of the withheld information in this case would have the effect suggested by the Ministers i.e. that disclosure would, or would be likely to, prejudice substantially the confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest," concluded the Scottish Information Commissioner.

Scottish Salmon Watch sincerely hopes that another appeal is not necessary in this case. I am not holding my breath but I look forward to SEPA re-visiting this review and disclosing the information requested ASAP.

As ever, I am happy to discuss this matter informally via 07771 541826.

Best fishes for 2020 and Merry Fishmas,

Don

Director, Scottish Salmon Watch

Appendix: FOI Disclosures by the Scottish Government on CleanTreat

Via [FOI-19-02443](#) disclosed today (19 December 2019):

[#1: Letter from the SSPO to SEPA copied to Scottish Ministers](#)

SEPA was lobbied by the Scottish Salmon Producers Organisation (SSPO) to conduct field trials of CleanTreat in Scotland after being "trialled successfully in Norway":

"You undertook to look again at the potential for trials of novel lice treatment methods and the barriers in the way of Scottish trials for the CleanTreat innovation which the developers believe has no environmental impact at sea," wrote the Chief Executive of the Scottish

Salmon Producers Organisation to the Terry A'Hearn, Chief Executive of SEPA in May 2019. "The novel approach has been trialled in Norway successfully and now requires field trials in Scotland... We understand that there have been discussions with the company involved though no progress has been made to take forward trials in Scotland."



30 May 2019

Mr T A'Hearn
SEPA
Strathallan House
Castle Business Park
Stirling
FK9 4TZ

By Email

Dear Terry,

[Redacted]



In this context, you undertook to look again at the potential for trials of novel lice treatment methods and the barriers in the way of Scottish trials for the CleanTreat innovation which the developers believe has no environmental impact at sea. The novel approach has been trialled in Norway successfully and now requires field trials in Scotland. It has the potential to reduce other medicinal treatment methods for lice significantly and reduce environmental impact from farms. We understand that there have been discussions with the company involved though no progress has been made to take forward trials in Scotland. If you required further information on the detail of the issue, we can provide it, though your team have worked with [Redacted] at Marine Scotland and the company involved directly already.

[Redacted]

I am copying this letter to Roseanna Cunningham, Cabinet Secretary for Cabinet Secretary for Environment, Climate Change and Land Reform and Fergus Ewing, Cabinet Secretary for the Rural Economy.

I look forward to your early response.

Yours sincerely,

[Redacted]

Julie Hesketh-Laird
Chief Executive

c.c. Roseanna.Cunningham.msp@parliament.scot
Fergus.Ewing.msp@parliament.scot

Scottish Salmon Producers Organisation
83 Princes Street, Edinburgh, EH2 2ER
enquiries@scottishsalmon.co.uk
www.scottishsalmon.co.uk @SSPOsays
Reg. No. SC152347

[#2: Redacted letter dated 3 October 2019 from the SSPO to SEPA copied to Scottish Ministers](#)

From: [Redacted] @gov.scot> On Behalf Of Cabinet Secretary for the Rural Economy
Sent: 03 October 2019 13:00
To: [Redacted] @gov.scot>
Cc: Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>; Minister for Rural Affairs and the Natural Environment <MinisterRANE@gov.scot>; [Redacted] @gov.scot>; DG Economy <DGEconomy@gov.scot>; Director of Marine Scotland Mailbox <Directormarinescotland@gov.scot>; Palmer MR (Mike) <Mike.Palmer@gov.scot>; [Redacted] gov.scot>; [Redacted]
[Redacted] @gov.scot>; [Redacted] @gov.scot>
Subject: Letter from the CEO of the SSPO

[Redacted]

To be aware of the attached correspondence that Mr Ewing and Ms Cunningham have been copied.

Kind regards

[Redacted]

Cabinet Secretary for the Rural Economy
[Redacted]

From: [Redacted] <[Redacted]@scottishsalmon.co.uk>

Sent: 03 October 2019 12:12

To: ComplaintsAdministrator@sepa.org.uk

Cc: ComplaintsAdministrator@sepa.org.uk; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>; Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; [Redacted] <[Redacted]@sepa.org.uk>; [Redacted] <[Redacted]@sepa.org.uk>; [Redacted] <[Redacted]@scottishsalmon.co.uk>; [Redacted] <[Redacted]@sepa.org.uk>; [Redacted] <[Redacted]@sepa.org.uk>

Subject: Letter from the CEO of the SSPO

Dear Sirs,

[Redacted]

Julie

Julie Hesketh-Laird
Chief Executive
Scottish Salmon Producers' Organisation

83 Princes Street, Edinburgh, EH2 2ER
07843 170483
0131 202 6211
jhesketh-laird@scottishsalmon.co.uk
www.scottishsalmon.co.uk

Twitter: @JulieHL



[#11: Email from SEPA to Benchmark re. visit to CleanTreat wellboat on 30 September 2019](#)

From: [Redacted] <[Redacted]@SEPA.org.uk>
Sent: 25 September 2019 11:53
To: [Redacted] <[Redacted]@bmkanimalhealth.com>; [Redacted] <[Redacted]@vmd.defra.gsi.gov.uk>; [Redacted] <[Redacted]@gov.scot>
Cc: [Redacted] <[Redacted]@bmkanimalhealth.com>; [Redacted] <[Redacted]@bmkanimalhealth.com>
Subject: RE: URGENT- Clean Treat visit opportunity

Morning [Redacted]

I can make 9am on Monday, I think it is important to flag a couple of points. We would expect to follow this up with a visit to the warehouse with relevant staff (our chemists), however having spoken to [Redacted] whilst a visit to the lab in a warehouse would be worthwhile it would obviously be much better to see the lab in situ on the vessel.

Given the above and the fact that [Redacted] can no longer make it, would it be possible to include [Redacted] on the visit? We understand that a chemist won't be available on the day, but still think [Redacted] seeing the lab in situ would be of benefit.

Thanks

[Redacted]

[Redacted]

Scottish Environment Protection Agency, Regulatory Services North, West Highland and Argyll Team, Kilbrandon House, Manse Brae, Lochgilphead, PA31 8QX
t: [Redacted] m: [Redacted] e: [Redacted] <[Redacted]@sepa.org.uk> web: www.sepa.org.uk

Via [FOI/19/01398](https://www.foi.gov.uk/19/01398) (3 July 2019):

[Part 1:](#)

CONFIDENTIAL

Use of [Redacted] and Clean Treat in the UK- Meeting 2

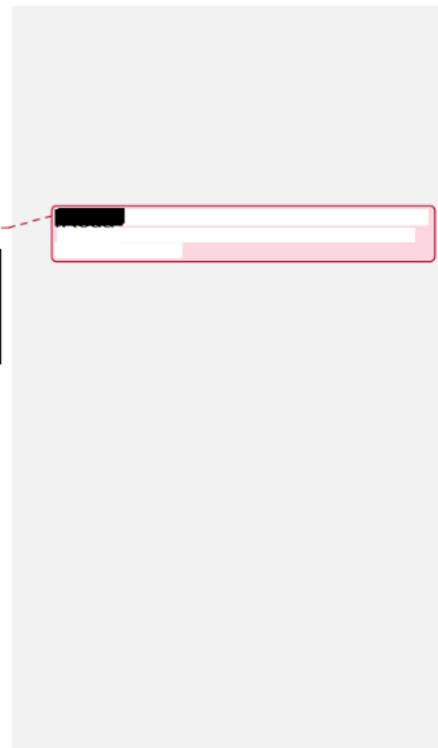
Meeting Location: 11th April 2019, 3.15-4.00pm, SEPA Offices, Stirling

Attendees:

Benchmark AH	SEPA	MS	VMD
[Redacted]	[Redacted]	[Redacted]	[Redacted]

-
-
-
-
-
-

[Redacted]



From: [Redacted]
Sent: 29 November 2018 10:02
To: [Redacted]
Cc: [Redacted]
Subject: Aquaculture - CleanTreat

Hi [Redacted]

1. I understand [Redacted] assed on Mr Ewing's request for details about outstanding CAR applications – grateful for an update please.
2. We have also had a request from Mr Ewing for information about the situation regarding the following:

"Mr Ewing would like advice from SEPA + MS LOT on the current progress of Benchmark's application for field trials of CleanTREAT + [Redacted] in Scotland. For those who are not aware of the system - CleanTREAT is a system which 'cleans' the sea lice treatment chemical (in this case a new product [Redacted]) from water before the water is discharged. <http://www.benchmarkplc.com/articles/cleantreat-by-benchmark/> .

[Redacted] outlined that the company wish to push forward with trials in Scotland (trials already happening in Norway) – and that Marine Harvest [Redacted] as partner wants to get this off the ground as soon as possible. It was claimed that neither SEPA nor MS LOT could confirm to the company who the regulatory lead on their application would be. [Redacted] said that progress with regulators was slow and that they wished to speed things up. Hence Mr Ewing's request for immediate advice."

Happy to discuss – by phone if appropriate

Thanks

[Redacted]

Environmental Quality and Circular Economy Division - Environment and Forestry Directorate -
Scottish Government
[Redacted]

[Part 2:](#)

From: [Redacted] (MARLAB)
Sent: 29 May 2019 11:42
To: [Redacted]
Subject: RE: Benchmark CleanTreat

Hi [Redacted],

Back in the office now!

We met with Benchmark a few weeks ago. SEPA and the VMD were also in attendance.

The position was that they would need to satisfy sepa's concerns as part of any marine licence application prior to the handover of the licensing role to SEPA. After which it seems likely to be SEPA's process entirely. They do seem to be in discussion with SEPA still. [Redacted]

[Redacted] As part of the meeting, Benchmark advised they would draft a 'white paper' to help explain what their plans were [Redacted]. This has not yet been received and we will be writing to benchmark, finalising the meeting minutes and reminding them of their offer of the white paper, probably today.

Hope this helps,

[Redacted]
[Redacted]

From: [Redacted]
Sent: 26 April 2019 18:50
To: [Redacted]
Cc: [Redacted]
Subject: RE: Meeting - Thursday 11 April 2019 1430 - 1630h

Hi [Redacted]

Yes it will definitely be possible to visit the boat. We are re-starting trials next week and are looking at possible dates for your visit. The dates are not yet fixed as it depends on the farms and the weather. It is looking likely that a date in the week of the 20th May might work but this is not yet confirmed. I will let you know definite dates as soon as I have them but they may be at quiet short notice unfortunately. I am currently looking into maximum numbers and will get back to you asap. I am hoping we can accommodate 2 people each from SEPA, MS and VMD but I need to confirm this. We will be limited by safety issues etc.

Kind Regards

[Redacted]
Animal Health Division
Tel: [Redacted]
[Redacted]



**Benchmark
Animal Health**

Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

From: [Redacted]
Sent: 23 April 2019 14:49
To: [Redacted]

Cc: [Redacted]
Subject: RE: Meeting - Thursday 11 April 2019 1430 - 1630h

Hi [Redacted]

Thanks for your time a couple of weeks ago. On reflection given your proposals are likely to involve commissioning a new or repurposing an existing vessel, it is important that we have the opportunity to feed in to or comment on any designs (particularly in reference to any potential process controls). As raised at the meeting our current understanding of the treatment and transfer process of your operations in Norway is fairly limited, for us to provide appropriate input we really need to have a clear understanding of the existing process. I think a visit to the existing vessel whilst operational would really help us develop that understanding. This would then allow us to highlight any areas of concern early so that they could potentially be addressed/mitigated as part of the design process.

I know there was an action from the meeting, but it would be good to know if that is going to be possible and if so, when and what limit there might be in numbers?

Kind regards

1

[Redacted]

Scottish Environment Protection Agency, Regulatory Services North, West Highland and Argyll Team, Kilbrandon House, Manse Brae, Lochgilphead, PA31 8QX

[Redacted]

web: www.sepa.org.uk

From:[Redacted]
Sent: 26 March 2019 14:12
To:[Redacted]

2

[Redacted]

Subject: Meeting - Thursday 11 April 2019 1430 - 1630h

Dear All

Thank you for completing the doodle poll, apologies that this date and time may not suit everyone, but as always it has proved difficult to find a slot. A number of us will be attending another meeting that day in Stirling on Thursday the 11th and so this looked like the best option. However to allow attendance at both we were hoping that you would be open to holding the meeting in Stirling. I have booked a meeting room at our SEPA Stirling Office, Strathallan House Castle Business Park Stirling FK9 4TZ. Parking is available at the Castlevue Park and Ride a 5 minute walk from the office. The office is linked to the Stirling Rail Station via the Park and Ride Bus <https://my.stirling.gov.uk/roads-transport-streets/parking-car-parks/park-ride/>.

Apologies [Redacted] but if you forwarded the invite to colleagues I don't have their email addresses so please pass this information along. Please confirm your attendance ideally by return. Should attendance in person not be possible we would be able to provide teleconferencing with live document sharing facilities.

Regards

[Redacted]

Scottish Environment Protection Agency
Strathallan House
Castle Business Park
Stirling
FK9 4TZ

Tel:[Redacted]
[Redacted]

From: [Redacted]
Sent: 07 December 2018 11:28
To: [Redacted]
Cc: [Redacted]

Subject: RE: For information only - Outcome of meetings on 28 November - mortality disposal + Benchmark cleantreat
Attachments: Cab Sec brief - benchmark - Dec 2018.docx

█ – thanks. Happy in large part, but I've suggested downplaying the references to wellboat discharge licensing moving to SEPA as it shouldn't affect consideration of this proposal under the current system (and any suggestion that it might may well be seized on).

Regards, █

Via [FOI-18-00985](#) (23 April 2018):

From: [Redacted]
Sent: 13 December 2017 14:01
To: [Redacted]
Cc: [Redacted]
Subject: RE: Ectosan sea lice treatment

Hi [Redacted]

Thanks for the Ectosan press release.

I note that Benchmark describe Ectosan as a follow on product to Salmosan. There's no publicly available on active ingredients, but I wonder if it's also azamethiphos-based, with the associated regulatory controls and need to avoid sea lice resistance, etc?

Regarding CleanTreat, this water purification system was presented at a SSPO meeting last week – again, no details provided on how the tech works, which made some of the audience a bit sceptical. Interestingly, it was mentioned that the shipping container-based modules would need to be multiplied up to enable treatment of commercial scale water volumes. As I understood things, this would in turn need a secondary vessel alongside the well boat. Finally, it was mentioned that initial discussion have been had with SEPA, but no indication as to how advanced these are.

I hope this is of some help!

Best regards,

[Redacted]

[Redacted]

[Redacted]

Scottish Aquaculture Innovation Centre

(t)[Redacted] (m)[Redacted] (w) scottishaquaculture.com [Connect+Collaborate](#)

From: Access to Information Enquiries <FOI.Mail@sepa.org.uk>

Date: Mon, Dec 23, 2019 at 4:58 PM

Subject: RE: FORMAL REVIEW RESPONSE - F0191198

To: Don Staniford <salmonfarmingkills@gmail.com>

Cc: Access to Information Enquiries <FOI.Mail@sepa.org.uk>

Dear Mr Staniford

I am writing to acknowledge receipt of your email, received by SEPA on 19 December 2019, in which you asked SEPA to re-consider its refusal to disclose information on CleanTreat via F0191198.

The Officer who conducted this Review is on annual leave, returning to the office on Monday 6 January and will consider your request on their return.

If you are not satisfied with our response to your request for Review, you can appeal, in writing, to the Scottish Information Commissioner, within six months of date of this response.

Scottish Information Commissioner
Kinburn Castle
Doubledykes Road

St Andrews
Fife
KY16 9DS
Telephone: 01334 464610
Fax: 01334 464611
Email: enquiries@itspublicknowledge.info
www.itspublicknowledge.info/appeal

Should you wish to appeal against the Scottish Information Commissioner's decision, you have the right to appeal to the Court of Session on a point of law only. Any such appeal must be made within 42 days after the date of intimation of the decision.

Regards,

Valerie Purves
SEPA Access to Information Team
Email: foi@sepa.org.uk
Tel: 01786 457700

[10] On 19 December 2019, the Scottish Government refused a FOI request by Scottish Salmon Watch claiming they had no information on BMK08 and could not disclose information on Ectosan "because disclosure of this particular information would, or likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests":

Response to your request

While our aim is to provide information whenever possible, in this instance we are unable to provide the information you have requested because exceptions under regulation 10(4)(a) (information not held) and 10(5)(e) (confidentiality of commercial or industrial information) of the EIRs applies to that information. The reasons why these exceptions apply are explained in the Annex to this letter.

REASONS FOR NOT PROVIDING INFORMATION

Exceptions apply

1. Under the terms of the exception at regulation 10(4)(a) of the EIRs (information not held), the Scottish Government is not required to provide information which it does not have. The Scottish Government does not have the information you requested with regard to BMK08.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. While we recognise that there may be some public interest in information about BMK08, clearly we cannot provide information which we do not hold.

2. Under the terms of the exception at regulation 10(5) (e) of the EIRs (the confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest).

An exception under regulation 10(5) (e) (confidentiality of commercial or industrial information) of the EIRs applies to the information you have requested with regard to Ectosan. This exception applies because disclosure of this particular information would, or would likely to, prejudice substantially the confidentiality of commercial information provided by Benchmark Holdings plc and thus cause substantial harm to their commercial interests.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We recognise that there is a public interest in disclosing information as part of open and transparent and accountable government, and to inform public debate. However, there is a greater public interest in protecting the commercial interests of companies when substantial harm can be made to their commercial interests.

[11]

From: **Sandra Russell** <s.russell@vmd.gov.uk>

Date: Fri, Dec 20, 2019 at 3:35 PM

Subject: OFFICIAL SENSITIVE: Response to Freedom of Information request ATI0634

To: salmonfarmingkills@gmail.com <salmonfarmingkills@gmail.com>

Dear Don

Thank you for your e-mail of 5 December 2019.

We are dealing with it under the Freedom of Information Act (FOIA) 2000.

Your Request

You asked for information on BMK08 and Ectosan (which may be one of the same) since 1 January 2018.

Our Reply

We fully recognise and respect the obligations imposed by the FOIA on the VMD to act in a manner that is transparent and open in the public interest. However, the very real harm likely to ensue from the disclosure of the information you request warrants the balance to be taken in favour of non-disclosure.

We consider that the disclosure of the information would be likely to prejudice the commercial interests of Marketing Authorisation holders and that Section 43 applies here. Section 43 is subject to a public interest test balance. After careful consideration we have concluded that the public interest in withholding the information strongly outweighs that for disclosure in this case. Through the marketing authorisation system, the VMD receives information from commercial entities that constitutes trade secrets and information protected by patent, the publication of which would create significant commercial harm to the manufacturer. The commercial entities are required by law to provide the information and are put to great expense to generate it. In this case, the information you request could be used by other manufacturers to formulate, develop or market products that would compete with these products. We consider such factors weigh against the public interest in disclosing the information in question.

We also judge that Section 41 of the FOIA applies to this request. Section 41 is an absolute exemption and it is engaged in this case because the information carries the necessary quality of confidence. In this instance publishing such information could undermine the veterinary pharmaceuticals industry's trust in the regulatory process as well as the companies' commercial position. This could lead to companies becoming unwilling to place product on the UK market, which would have a detrimental impact on animal welfare. Further, the market as a whole benefits from establishing and upholding a robust process for marketing authorisations; this in turn requires appropriate protection of confidentiality, and the honouring of expectations of confidentiality.

Information releasable to the public

In keeping with the spirit and effect of the FOIA and the government's Transparency Agenda, we may place this request on [GOV.UK](https://www.gov.uk), in due course. We will not place information identifying you on the [GOV.UK](https://www.gov.uk) website.

Our Service

If you are unhappy with the service you have received in relation to your request and wish to make a complaint, you may request an internal review within two calendar months of the date of this e-mail. If you would like to request an internal review please write to Mike Griffiths at the VMD via ati@vmd.gov.uk. If you are not content with the outcome of the internal review

you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

Many thanks

Sandra Russell
Freedom of Information Officer

A [FOI reply from the Veterinary Medicines Directorate in January 2018](#) claimed to have no information on CleanTreat or Ectosan:

AT1502 Request for certain information relating to Ectosan and CleanTreat during 2017 [the VMD does not hold this information]

[Media Backgrounder: Chemically Embalmed Scottish Salmon \(December 2019\)](#)

In 2017, the [front page of The Sunday Times Scotland revealed](#) that the use of toxic chemicals including Azamethiphos, Deltamethrin and Emamectin benzoate on Scottish salmon farms had increased ten-fold over the last decade.

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SCOTLAND'S BESTSELLING QUALITY NEWSPAPER

THE SUNDAY TIMES

SCOTLAND

Salmon industry toxins soar by 1,000%

Mark Macaskill

THE use of toxic chemicals to fight sea lice on Scottish salmon farms has soared by almost 1,000% in the past decade, according to official data that has sparked fresh criticism of the billion-pound industry.

From 2006 to 2016, farmed salmon production increased by 35% while the use of chemicals to control flesh-eating lice rose 932%.

They included compounds that have been linked to reduced fertility in wild salmon and mortality in shellfish such as lobsters.

However, the [data published by the Scottish Environment Protection Agency](#) does not include the [huge increases in the use of Hydrogen Peroxide](#) or the use of Azamethiphos and Deltamethrin in well boats servicing salmon farms (and discharging untreated chemicals wastes in the vicinity of salmon farms). Data on chemical use in well boats for 2018 and 2019 is still not available via SEPA's ['Scottish Pollutant Release Inventory'](#) (read more via [\[5\]](#)).

Scotland's aquaculture

part of
Scotland's environment

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Search Results

Monthly Biomass & Treatment Reports > Report Month > From date: 01/01/1900 To date: 09/12/2019

Water Type --All-- Local Authority --All-- Sealice Treatment Used --All--

[Apply Current Filters](#) [Show All Results](#) [Clear All Filters](#) [CSV Export](#)

NB This dataset does not include treatments carried out on wellboats. The full annual SPRI data returns inclusive of wellboat information can be found [here](#)

Read more via: [Scottish Salmon's Lethal Legacy - Ten-fold Increase in Toxic Chemical Use in Ten Years](#)

In October 2018, Scottish Salmon Watch published a [Media Backgrounder: All is Not Well With Sick Scottish Salmon](#) detailing the unreported use of toxic chemicals via well boats - including:

Media Backgrounder (October 2018):

All is Not Well With Sick Scottish Salmon

- **Unreported Use of Toxic Chemicals Via Wellboats Slips Net**
- **Lethal Plumes of Poison Flooding Scottish Lochs**
- **New Scientific Paper Raises Serious Concerns**
- **Norway proposes a ban on toxic chemical use on salmon farms**
- **SEPA now reviewing toxicity of Azamethiphos & Hydrogen Peroxide (???)**



Summary:

The use of toxic chemicals via wellboats to treat lice-infested Scottish salmon is slipping through the net. According to SEPA, [Scotland's Aquaculture database](#) does NOT record the use of Azamethiphos and Deltamethrin via wellboats and does NOT record use of Hydrogen Peroxide at all.

Data on the use of Azamethiphos and Deltamethrin is recorded via [SEPA's Scottish Pollutant Release Inventory](#) but is not available for 2017 and 2018 (Hydrogen Peroxide use is not recorded at all).

FOI documents obtained from the Scottish Government and SEPA reveal that reporting on the use of toxic chemicals via wellboats is haphazard, at extremely short notice and in some cases (e.g. Scottish Sea Farms in Loch Nevis in December 2016) reporting takes place after the use of toxic chemicals (i.e. breach of the licence).

Data suggests an explosion in the use of Azamethiphos, Deltamethrin and Hydrogen Peroxide via wellboats (although the data sets available make it impossible to calculate annual use figures).

Data [disclosed by the Scottish Government in June 2018](#) reveals that dozens of wellboats - mostly registered in Norway but some in Chile and Canada - are now licensed by Marine Scotland until as far away as 2021 to discharge toxic chemicals from over 100 salmon farms around Scotland.

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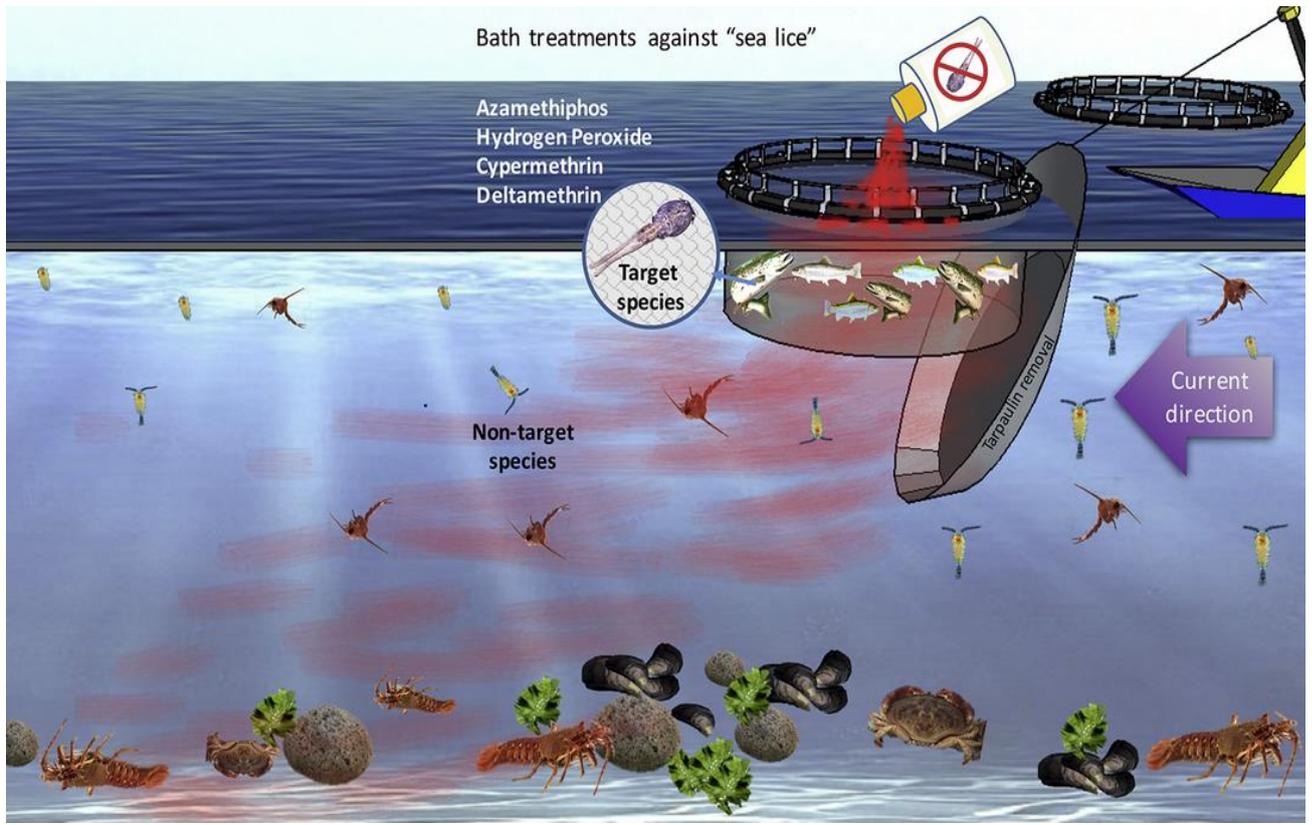
A new scientific paper [published in the February 2019 issue of *Science of the Total Environment*](#) concludes that the use of Azamethiphos, Cypermethrin, Deltamethrin and Hydrogen Peroxide "have detrimental effects on non-target species".

In September 2018, the Norwegian Government's Ministry of Food & Fisheries [proposed a ban](#) on the use of toxic chemicals via tarpaulins. "The move follows surprising and controversial early findings in one scientific study that hydrogen peroxide, regarded as the least environmentally harmful of the chemicals used to kill sea lice, can damage shrimp stocks," [reported](#) Fish Farming Expert (25 September 2018).

Norwegian research presented in March 2018 on "[Environmental effects of chemicals used against sea lice](#)" reported [significantly increased mortality of shrimp](#) by both Deltamethrin and Hydrogen Peroxide.

In August 2016, a [report published by the Scottish Aquaculture Research Forum](#) revealed that the use of Emamectin benzoate (SLICE) was [lethal to lobsters](#). However, SEPA [dropped a proposal](#) to ban the use of Emamectin [following lobbying by the Scottish salmon farming industry](#), the [chemical company Merck](#) and the [Scottish Government](#) (read more [online here](#) and via "[Slicegate: Anatomy & Chronology of an Environmental Lobotomy](#)").

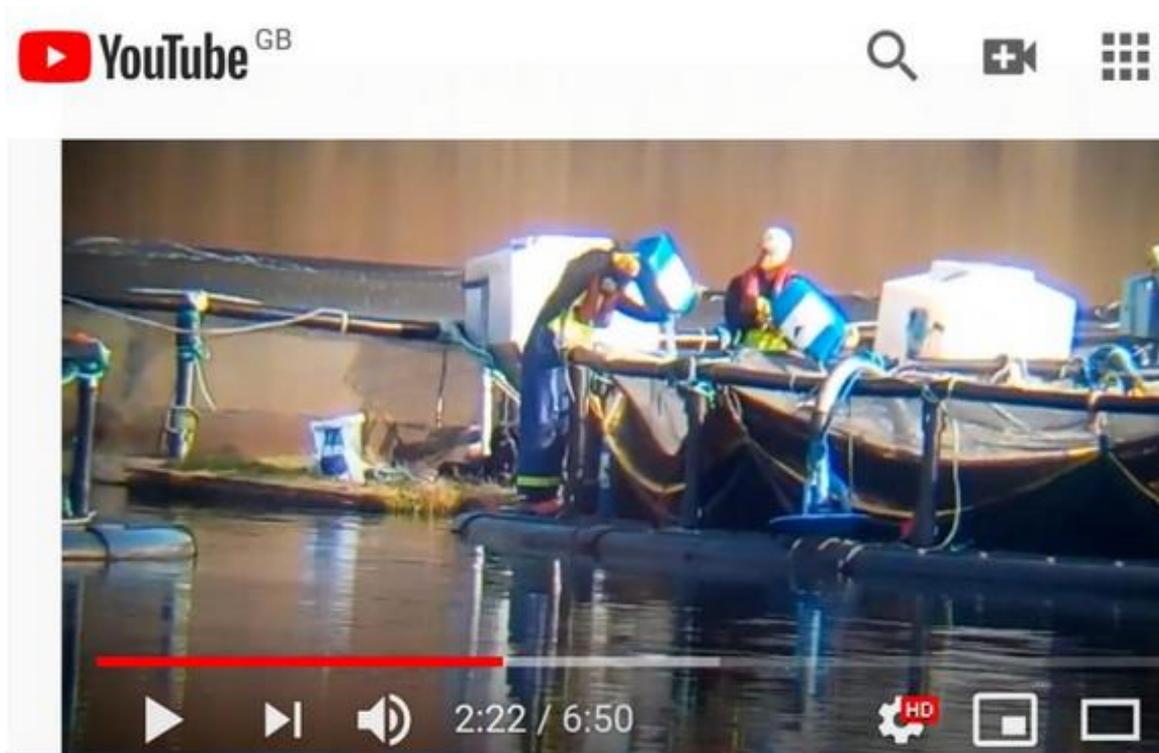
Read more via "[Effects of pharmaceuticals used to treat salmon lice on non-target species: Evidence from a systematic review](#)"



In July 2019, The Sunday Times [exposed the use of the carcinogenic chemical Formalin \(Formaldehyde\) by salmon farms in Scotland](#). Scottish Salmon Watch obtained video footage of vats of chemicals - for both [Formaldehyde](#) and Hydrogen Peroxide.



In November 2019, video footage of a salmon farmer wearing a gas mask using Formaldehyde in Loch Tralaig was [published by Scottish Salmon Watch](#).



In [2017](#), [2018](#) and [2019](#), Rob Edwards revealed in a [series of articles published in The Sunday Herald](#) and [The Ferret](#) how [salmon farmers](#), [the chemical giant Merck](#) and the [Scottish Government](#) had fought off a ban on the [lobster-killing chemical Emamectin benzoate](#) in a scandal dubbed '[Slicegate](#)'.

How the Scottish Government 'nuanced' away fish farm pesticide ban



The Scottish Government put pressure on its environmental watchdog to drop a plan to ban a toxic pesticide so as not to upset the fish farming industry.



In May 2019, [BBC Panorama reported](#) that Mowi (formerly Marine Harvest) was "one of a number of firms under investigation for possible misreporting of chemical use".

In 2013, [The Guardian](#) and [The Sunday Herald](#) revealed how toxic chemicals used by salmon farms were contaminating the sea-bed. In 2017, The Sunday Herald followed up with a [front-page news story](#) on how 45 lochs across Scotland had been contaminated with toxic chemicals used by salmon farms.

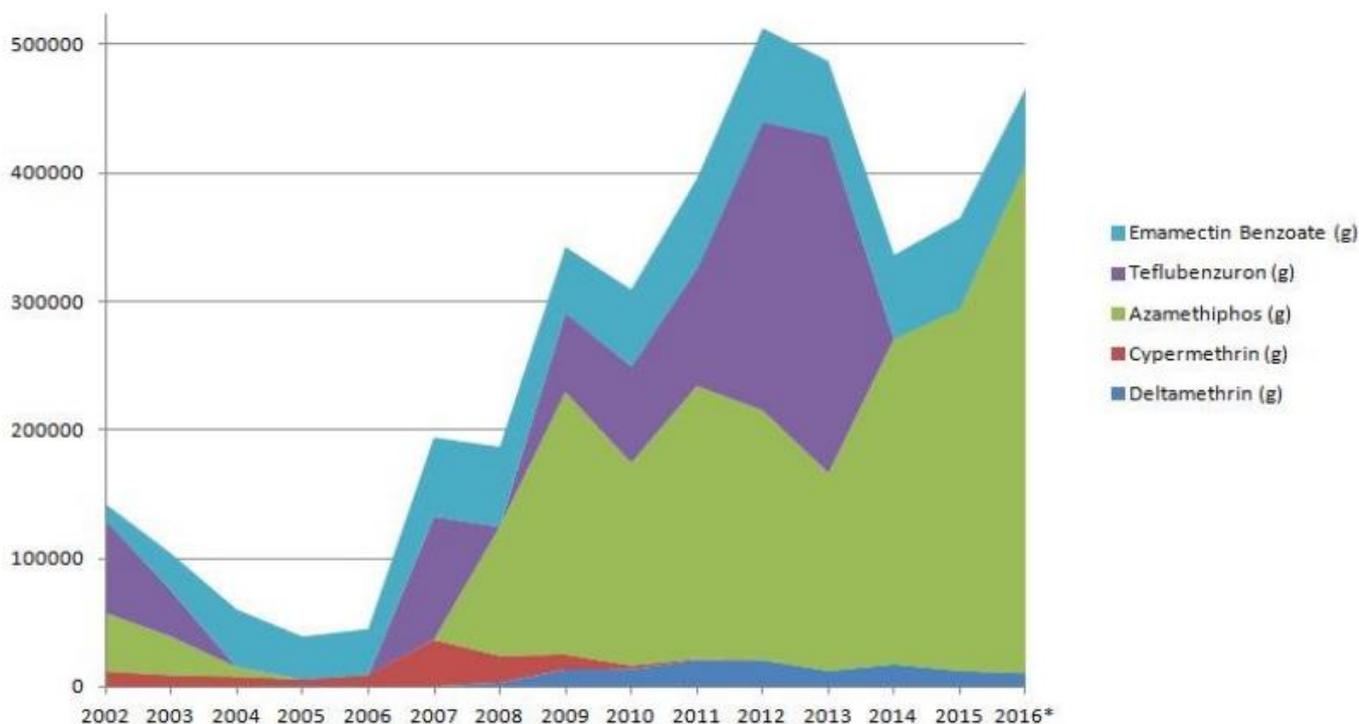


In 2009, [Rob Edwards revealed](#) that Marine Harvest ([re-named Mowi in 2019 due to negative consumer perception in the name Marine Harvest](#)) apologised for offering to reward officials at Scotland's environment watchdog with smoked salmon for giving the go-ahead for a new toxic pesticide (Deltamethrin) in record time.

In 1996, a [secret trial of the toxic chemical Teflubenzuron was carried out on the Isle of Skye](#) leading to the deaths of lobsters. In 2015, Teflubenzuron was finally "[withdrawn from the market after scientists found that that it can leak into lochs and kill crabs, shrimps and lobsters](#)".

Data on the use of Azamethiphos, Cypermethrin, Deltamethrin, Emamectin benzoate and Teflubenzuron ([withdrawn from the market in 2015 after scientists found that that it can leak into lochs and kill crabs, shrimps and lobsters](#)) on salmon farms ([excluding the use on well](#)

boats) since 2002 is [available to download as an Excel spreadsheet via 'Scotland's Aquaculture' web-site.](#)



The public can [search the Scotland's Aquaculture database by company, chemical and site.](#) For example, here's the largest reported uses (in grams) of Deltamethrin (excluding use via wellboats) in 2019 (data up to September):

Year	Deltamethrin	Site Name	Operator
01-Mar-19	480	Port na Moine Site 2 (North)	Mowi Scotland Ltd
01-Aug-19	240	Colonsay	Mowi Scotland Ltd
01-Jul-19	180	Isle of Rum	Mowi Scotland Ltd
01-Aug-19	150	Isle of Rum	Mowi Scotland Ltd
01-May-19	150	Port na Moine Site 2 (North)	Mowi Scotland Ltd
01-Mar-19	135	Erisort, North Shore East	Mowi Scotland Ltd
01-Jul-19	130	Port na Moine Site 2 (North)	Mowi Scotland Ltd
01-Jun-19	122.5	Portnalong	Mowi Scotland Ltd
01-Mar-19	122.5	Portnalong	Mowi Scotland Ltd
01-Jul-19	120	Colonsay	Mowi Scotland Ltd
01-Jul-19	120	Seaforth	Mowi Scotland Ltd
01-Mar-19	105	Isle of Rum	Mowi Scotland Ltd
01-Aug-19	100	Am Maol, Isle of Muck	Mowi Scotland Ltd
01-Aug-19	93.6	Noster	Mowi Scotland Ltd
01-Jan-19	90	Isle of Rum	Mowi Scotland Ltd
01-Apr-19	87.5	Am Maol, Isle of Muck	Mowi Scotland Ltd
01-Jun-19	75	Am Maol, Isle of Muck	Mowi Scotland Ltd
01-Mar-19	75	Erisort, North Shore West	Mowi Scotland Ltd
01-Sep-19	65	Greanamul	The Scottish Salmon Company Ltd
01-Mar-19	62.5	Caolas a Deas East	Mowi Scotland Ltd

Here's the largest reported uses (in grams) of Azamethiphos (excluding use via wellboats) in 2019 (data up to September):

Year	Azamethiphos	Site Name	Operator
01-Apr-19	6060.000092	MacLeans Nose	Mowi Scotland Ltd
01-Jun-19	5509.99985	Groatay	Mowi Scotland Ltd
01-Aug-19	4800.000072	Creag an Sagairt West	Mowi Scotland Ltd
01-Sep-19	4790.000066	Creag an Sagairt West	Mowi Scotland Ltd
01-Jul-19	4400.000066	Ardintoul	Mowi Scotland Ltd
01-May-19	4239.99992	Ardintoul	Mowi Scotland Ltd
01-Feb-19	4000	MacLeans Nose	Mowi Scotland Ltd
01-May-19	3600.000054	Port na Cro	Mowi Scotland Ltd
01-Jun-19	3450.000125	Duich	Mowi Scotland Ltd
01-Aug-19	3150.000095	Ardintoul	Mowi Scotland Ltd
01-Jul-19	3150	West of Burwick	Grieg Seafood Shetland Ltd
01-Feb-19	3150	West of Burwick	Grieg Seafood Shetland Ltd
01-Jan-19	3150	West of Burwick	Grieg Seafood Shetland Ltd
01-Jun-19	3119.99993	Tabhaigh	Mowi Scotland Ltd
01-May-19	3079.999986	Sron	Mowi Scotland Ltd
01-Jun-19	3079.999983	Sron	Mowi Scotland Ltd
01-Mar-19	3000	Bastaness	Cooke Aquaculture Scotland
01-Jun-19	2899.999917	Grey Horse Channel	Mowi Scotland Ltd
01-May-19	2760	MacLeans Nose	Mowi Scotland Ltd
01-Apr-19	2750	Poll na Gille	Mowi Scotland Ltd

For example, here's the largest reported uses (in grams) of Emamectin benzoate (excluding use via wellboats) in 2019 (data up to September):

Year	Emamectin Benzoate	Site Name	Operator
01-Jun-19	795	Bagh Dail nan Ceann North an	Mowi Scotland Ltd
01-May-19	734.72	Flaeshins	Cooke Aquaculture Scotland
01-Sep-19	620.74	Loch Portree (Torvaig)	The Scottish Salmon Company Ltd
01-Jun-19	614.4	Poll na Gille	Mowi Scotland Ltd
01-Jul-19	610.16	Gravir Outer	The Scottish Salmon Company Ltd
01-Aug-19	582.4	Stead of Aithness	Cooke Aquaculture Scotland
01-May-19	546.092	Tabhaigh	Mowi Scotland Ltd
01-May-19	524.4	Gometra	The Scottish Salmon Company Ltd
01-Jan-19	522.2	Creran A	Scottish Sea Farms Ltd
01-May-19	514.3	Geasgill	The Scottish Salmon Company Ltd
01-Jul-19	498.48	Loch Portree (Torvaig)	The Scottish Salmon Company Ltd
01-Jun-19	478.4	Rubh an Trilleachain	Kames Fish Farming Ltd
01-Jul-19	468.6	Druimyeon Bay	The Scottish Salmon Company Ltd
01-Jun-19	441	MacLeans Nose	Mowi Scotland Ltd
01-Sep-19	436.8	Ness of Copister	Cooke Aquaculture Scotland
01-Sep-19	434	Kishorn Outer, Offshore of Ai	Scottish Sea Farms Ltd
01-Apr-19	434	Druimyeon Bay	The Scottish Salmon Company Ltd
01-May-19	412.5	Gravir Outer	The Scottish Salmon Company Ltd
01-Mar-19	410	Gometra	The Scottish Salmon Company Ltd
01-May-19	408.8592	Erisort, North Shore East	Mowi Scotland Ltd

Here's the top twenty reported uses of Deltamethrin (in grams) since 2002 - with Mowi's salmon farm at Port na Moine leading the way in March 2019:

Year	Deltamethrin	Site Name	Operator
01-Mar-19	480	Port na Moine Site 2 (North)	Mowi Scotland Ltd
01-Jul-14	400	Vuia Beag	The Scottish Salmon Company Ltd
01-Aug-11	385	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Feb-15	357.5	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Jul-14	337.5	Kyles Vuia East	The Scottish Salmon Company Ltd
01-Sep-11	332.5	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Jul-14	312.5	Taranaish	The Scottish Salmon Company Ltd
01-Jul-14	287.5	Vacasay, Roag	The Scottish Salmon Company Ltd
01-Oct-15	285	Poll na Gille	Mowi Scotland Ltd
01-Sep-12	280	Vuia Beag	The Scottish Salmon Company Ltd
01-Oct-13	275	Cairidh	Mowi Scotland Ltd
01-Mar-16	270	Sron	Mowi Scotland Ltd
01-Aug-12	270	Vuia Beag	The Scottish Salmon Company Ltd
01-Jul-15	262.5	Hellisay	Mowi Scotland Ltd
01-Apr-15	262.5	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Sep-18	255	Isle of Rum	Mowi Scotland Ltd
01-Jun-15	255	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Mar-15	255	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Dec-15	250	Gravir Outer	The Scottish Salmon Company Ltd
01-Nov-15	250	Rubh an Trilleachain	Kames Fish Farming Ltd

Here's the top twenty reported uses of Azamethiphos (in grams) since 2002 - with [Mowi's salmon farm at Ardintoul in Loch Alsh Special Area of Conservation](#) heading the list in December 2015:

Year	Azamethiphos	Site Name	Operator
01-Dec-15	13649.99952	Ardintoul	Mowi Scotland Ltd
01-Sep-16	10329.99983	Soay Sound	Mowi Scotland Ltd
01-Jun-14	7600	Gousam	The Scottish Salmon Company Ltd
01-Feb-15	7349.999875	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Jul-08	7200	Brei Geo Offshore	Scottish Sea Farms Ltd
01-Dec-10	7000	Burrastow	Cooke Aquaculture Scotland
01-Nov-16	6949.999893	Soay Sound	Mowi Scotland Ltd
01-Sep-08	6674.5	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Dec-16	6400.000244	Gorsten	Mowi Scotland Ltd
01-Sep-16	6340.000063	Carradale (North)	Mowi Scotland Ltd
01-Jan-16	6174.999774	Ardintoul	Mowi Scotland Ltd
01-Apr-19	6060.000092	MacLeans Nose	Mowi Scotland Ltd
01-Jun-15	5949.999899	Camas an Leim (Torridon)	Mowi Scotland Ltd
01-Jul-11	5920	Papa, East Head of Scalloway	Grieg Seafood Shetland Ltd
01-Jun-16	5850	Ardintoul	Mowi Scotland Ltd
01-Aug-16	5800	Vuia Mor South	The Scottish Salmon Company Ltd
01-May-17	5720	West of Burwick	Grieg Seafood Shetland Ltd
01-Oct-16	5719.999909	Soay Sound	Mowi Scotland Ltd
01-Oct-14	5700	Seaforth	Mowi Scotland Ltd
01-Jun-19	5509.99985	Groatay	Mowi Scotland Ltd

Data on the use of Hydrogen Peroxide was published via FOI by SEPA in November 2019 ([F0191054](#)). Here's the top 20 biggest uses of Hydrogen Peroxide (excluding use in wellboats) during 2018:

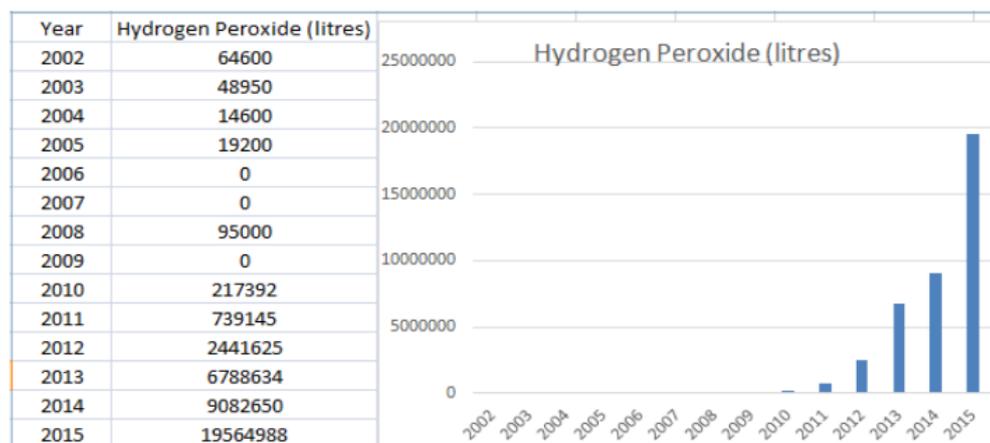
Year	Site Name	Operator (at date of submission)	Hydrogen Peroxide (litres)
2018	Marulaig Bay	Marine Harvest (Scotland) Ltd	613000
2018	Groatay	Marine Harvest (Scotland) Ltd	175410
2018	Grey Horse Channel	Marine Harvest (Scotland) Ltd	151050
2018	Uiskevagh North	The Scottish Salmon Company Ltd	137974
2018	Stulaigh Island	Marine Harvest (Scotland) Ltd	132250
2018	Skipport Outer (Ornish)	Marine Harvest (Scotland) Ltd	114368
2018	West of Burwick	Grieg Seafood Shetland Ltd	111600
2018	Taranaish	The Scottish Salmon Company Ltd	106176
2018	Maragay Mor	The Scottish Salmon Company Ltd	105234
2018	Hellisay	Marine Harvest (Scotland) Ltd	104815
2018	Flaeshins	Cooke Aquaculture Scotland	91789
2018	Aird Ardheslaig	The Scottish Salmon Company Ltd	91000
2018	Camas an Leim (Torridon)	Marine Harvest (Scotland) Ltd	85777.5
2018	Petersport North	The Scottish Salmon Company Ltd	85673
2018	Maol Ban	Marine Harvest (Scotland) Ltd	81948.5
2018	Cairidh	Marine Harvest (Scotland) Ltd	81885
2018	Vuia Mor	The Scottish Salmon Company Ltd	79800
2018	East of Langa	Grieg Seafood Shetland Ltd	78912
2018	Setterness North	Grieg Seafood Shetland Ltd	78360
2018	Bagh Dail nan Ceann	Marine Harvest (Scotland) Ltd	75830

Data on Hydrogen Peroxide use from 2002 to 2015 was [published by the Global Alliance Against Industrial Aquaculture in 2017](#).

**Sky-Rocketing Chemical Use on Scottish Salmon Farms
- Hydrogen Peroxide use leaps from 19,000 litres in 2005 to 19m litres in 2015**

Explosive new data from the Scottish Environment Protection Agency (SEPA) reveals a staggering increase in the use of a "corrosive" chemical on Scottish salmon farms. Data obtained by the Global Alliance Against Industrial Aquaculture (GAAIA) via Freedom of Information (FOI) reveals that the use of [Hydrogen Peroxide](#) shot up from 19,200 litres in 2005 to 19.6 million litres in 2015 (an increase of 101,801%) as chemical resistance cripples the Scottish salmon farming industry [1].

Read more via today's Sunday Times: "[Record chemical use 'of concern' to salmon giant](#)" [2]



Read more via "[Sky-Rocketing Chemical Use on Scottish Salmon Farms - Hydrogen Peroxide use leaps from 19,000 litres in 2005 to 19m litres in 2015](#)"

Contact Don Staniford on 07771 541826 (salmonfarmingkills@gmail.com)



Read more [online here](#)

 **Don Staniford**
@TheGAAIA

Today's Sunday Times: "Official fears revealed over toxic threat of salmon trade" tinyurl.com/qv6dz3d
[@SundayTimesScot](#) [@SalmonTroutCons](#) [@SSPOsays](#)
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THE SUNDAY TIMES Today's edition • Part 2 of 2 • No article

Official fears revealed over toxic threat of salmon trade

Industry fears over pollution risk highlight potential danger to the UK fish trade

High Profile
Thursday 12:28: 1000
1000 words



The salmon farming industry will face tighter regulations could force smaller operations.

After 15 years, the industry is planning provisions for additional salmon farms production of 30,000 tons have either been granted or are in the pipeline.

"This begs the question, who have ministers failed to exempt from the tighter environmental regulations while permitting the industry to continue to expand exponentially?" said Andrew Kinnear, former director of salmon and trout in Scotland, Scotland. "This is not responsible government."

Medicines are used to protect farmed fish from disease and infections, such as sea lice.

There are fears in the north west of Scotland, but concerns remain that large numbers of farmed fish, as well as farmed and wild salmon, are being taken from thousands of miles in the north west, are being taken from some of Scotland's best water.

A civil servant admitted farmed salmon, Scotland's first food export, could pose an "unacceptable" threat to the environment, according to newly released documents that reveal ministers are keen to test a technology to protect against farmed salmon used by the industry.

A briefing note was drawn up by advisors to Fergus Ewing, the rural economy minister, before a meeting with executives behind a planning water purification system.

The note stated that the purpose of the meeting, which took place at the Scottish Parliament in September was "to discuss the potential risk of the technology to Scotland" and to ensure that the industry is aware of the potential risk to the UK fish trade. It also noted that the industry is aware of the potential risk to the UK fish trade, which employs 12,000 people, could have "unacceptable impacts" on the environment "if not correctly regulated".

Internal emails show that in 2016, Scottish government officials described ClearFlow, which removes medication from treatment water before returning the "cleaned" water to the sea, as a "game changer". The industry's umbrella body, the Scottish Salmon Producers' Association, has been lobbying ministers to allow the technology, which has been tested successfully in Norway, to be tested in Scottish waters.

The documents suggest that executives at ClearFlow have been contacted by civil servants in recent months to accept their proposal for trials in Scotland which should be tested in Scotland with interest and appropriate safeguards and monitoring in place.

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12:11 AM · Dec 29, 2019 · Twitter Web App