



Scottish Ministers: scottish.ministers@gov.scot
Scottish Environment Protection Agency: terry.ahearn@sepa.org.uk
Veterinary Medicines Directorate: postmaster@vmd.defra.gsi.gov.uk

20 May 2020

**FOI Request: Field Trials of Imidacloprid (Ectosan/BMK08)
& Possible Misreporting of Chemical Use in Salmon Farming Since 2017**

Further to Scottish Salmon Watch's [letter dated 17 March 2020](#), please provide details on any proposed, in progress and completed field trials of Imidacloprid (Ectosan/BMK08) by the salmon farming industry in Scotland since 2017.

This would involve documentation pertaining to any field trials - however illegal, unsanctioned, aborted, unfinished an/or still in the pipeline - in 2019 (or even earlier) as well as any field trials in Loch Ailort by Mowi and other companies at other locations in Scotland during 2020.

Please note that the following information was disclosed earlier this week (18 May 2020) by SEPA via a Formal Review of F0191735 which was handled under the reference number [F0191802](#).

[REDACTED]

From: [REDACTED]@mowi.com>
Sent: 10 March 2020 08:42
To: [REDACTED] TO SEPA
Cc: [REDACTED] CC MOWI & SEPA
Subject: Ectosan Sea Lice treatment trial_Ardnish (Loch Ailort)
Attachments: Ectosan Trial_Ardnish.pdf

Hi [REDACTED], please the attached letter. I would be grateful for your advice as to how this can be carried out within CAR.

Best regards
[REDACTED]

[REDACTED]
Mowi Scotland Limited
Mobile: +44 [REDACTED]
DDI: +44 [REDACTED]
Mail: [REDACTED]@mowi.com





MOWI[®]



Scottish Environment Protection Agency
Angus Smith Building
6 Parklands Avenue
Eurocentral
Holytown
North Lanarkshire ML1 4WQ

10 March 2020

Dear 

**THE WATER ENVIRONMENT (CONTROLLED ACTIVITIES) (SCOTLAND) REGULATIONS 2011
ECTOSAN SEALICE TREATMENT TRIAL - ARDNISH**

At our recent liaison meeting with your colleagues held at our Ardnish site we discussed the possibility of carrying out a field trial at Ardnish involving the new medicine Ectosan. Trials carried out to date have demonstrated that the medicine shows very high levels of efficacy against sea lice with no adverse environmental impacts when the treatment is coupled with a proprietary purification system, which removes any detectable traces of medicinal residues prior to the release of the treatment water. It would be our intention to further support development studies by carrying out such a trial at Ardnish. This would also involve treating the treatment water in a scaled and equivalent purification system to remove any remaining medicine components prior to release.

As you are aware, sea lice treatment strategies have evolved from one which was based predominantly on medicinal control to a more balanced strategy, including the use of cleaner fish and physical removal, alongside the use of licensed medicines. Medicines however remain an important component of a balanced strategy and to maintain efficacy of treatment for each medicinal product and to prevent resistance, it is important that their use is rotated and that repeat treatments with the same active ingredient are minimised. However, the aquaculture industry currently has access to only a very limited number of medicinal treatments to treat salmon for the infestation of sea lice. It is therefore essential that innovation in new medicine development is supported including the need for their evaluation in carefully managed and controlled field trials.

We seek SEPA's support in carrying out such a trial involving Ectosan at our Ardnish site and I would request your advice as to how this can be carried out within the CAR regulatory framework.

Yours sincerely



Cc:  (by email)
Mowi Scotland Limited, Farms Office, Glen Nevis Business Park, Fort William PH33 6RX
Tel: 

CC SEPA

Mowi Scotland Limited

Registered in Scotland No. 138843

The Scottish Government [claimed in a FOI reply dated 11 May 2020](#) that "there has been no release of Imidacloprid under any marine licence - as none have been issued by Marine Scotland".

REASON FOR NOT PROVIDING INFORMATION

Exception applied

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 as there has been no release of Imidacloprid under any marine licence - as none have been issued by Marine Scotland.

However, has Imidacloprid been used without a marine licence or via another licence such as an experimental trial licence or other authorisation via SEPA, the VMD, Marine Scotland or another agency?

Earlier this month, the Norwegian Medicines Agency (NoMA) refused to disclose information on any trials of Imidacloprid by salmon farms in Norway. "Information about clinical trials with veterinary medicinal products, performed by pharmaceutical industry, is considered to be confidential information," wrote NoMA in an email to Scottish Salmon Watch dated 29 April 2020. "According to the Norwegian act on medicinal products §30 the NoMA is not allowed to disclose information that is considered commercially sensitive. We can therefore not disclose whether permission to perform clinical trials with Imidacloprid has been granted."

Have clinical trials or any other experimental trials of Imidacloprid (Ectosan/BMK08) already taken place in salmon farming in Scotland?

When asked by Scottish Salmon Watch for a site visit to the CleanTreat operation and specific information on BMK08 (Ectosan/Imidacloprid), Benchmark replied in January 2020 that it is "commercially sensitive" and that "the CleanTreat system is demobilised until further trials are planned".

From: **Rachel Aninakwah** <rachel.aninakwah@bmkholdings.com>
Date: Thu, Jan 23, 2020 at 8:21 AM
Subject: Re: Visit to CleanTreat's operations in early 2020?
To: salmonfarmingkills@gmail.com <salmonfarmingkills@gmail.com>

Dear Don,

Many thanks for your interest in Benchmark's CleanTreat purification system.

Our new sea lice treatment, BMK08, is currently in development phase and is therefore commercially sensitive and due to regulations we are constrained about the extent to which we can provide information. The CleanTreat system is demobilised until further trials are planned so we are unable to offer a visit at this time.

We would be happy to share with you the publicly available information on CleanTreat in the meantime. The CleanTreat webpage [here](#) explains the CleanTreat process in more detail.

Kind regards,
Rachel

RACHEL ANINAKWAH
COMMUNICATIONS MANAGER

T. +44 (0) 203 696 0630
rachel.aninakwah@bmkholdings.com
benchmarkplc.com
14 Red Lion Square, London WC1R 4QH

Such a statement suggests that field trials have already taken place - did these trials involve the use of Ectosan ([publicly announced in 2017](#); [re-branded as BMK08 in 2019](#) and [revealed as Imidacloprid in 2020](#)) and when and where did they take place?

Norwegian Fish Farmer magazine [reported back in 2016](#) that an [international patent had been obtained in 2015](#) for the use of Imidacloprid in salmon farming [citing an investors presentation in 2014 calling the chemical D10 Aquatic Blast](#). The [Inverness-based Fish Vet Group \(owned by Benchmark\)](#) appear to have registered Ectosan as a patent in Norway back in 2013 ([via intellectual property company Zacco Norway](#)) under "Veterinary preparations; disinfectants; preparations for destroying vermin; pesticides".

Documents [disclosed by the Scottish Government via FOI in December 2019](#) suggest secret trials of BMK08/Ectosan may have already taken place in Scotland without public consultation.

"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 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."

A [redacted email from SEPA in Lochgilphead 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" with a visit suggested in May 2019:

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

A [redacted email in February 2019](#) from Marine Scotland 'Re: Benchmark - CleanTreat' discussed the need for further information on "the permits required in Norway for your trial there"; "more detail on the proposed activity in the marine area (i.e. - what is proposed to be deposited in the sea)" and "sensitivity of the testing to LOD etc. to understand what the output might contain".

A [redacted email marked 'Sensitive' dated December 2018](#) referred to a meeting between Benchmark and Fergus Ewing (Cabinet Secretary for Rural Economy) 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'".

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".

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](#).

[FOI documents disclosed by the Scottish Government in December 2019 via FOI-19-01398 reveal that in April 2019](#), the Cabinet Secretary of Rural Economy (Fergus Ewing) met with "four key Scottish salmon producers" ([six companies - all foreign controlled - comprise 99% of Scottish salmon farming production: Mowi, Scottish Sea Farms, The Scottish Salmon Company, Grieg Seafood, Cooke Aquaculture and Loch Duart](#)) interested in the potential of 'CleanTreat'. "[Redacted] were concerned at an over-reliance on SLICE, which would inevitably lead to greater resistance to the chemical over time - there needed to be a basket of around 3 licensed anti-lice medicines in play."

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] Clean Treat in the UK- Final Meeting Minutes
uac

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] as 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 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 on 14 March 2019).

[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]

[Redacted]

Animal Health Division
[Redacted]



Bush House, Edinburgh Technopol, Edinburgh, EH26 0BB

Finally, Scottish Salmon Watch note that it is exactly one year ago since [BBC Panorama reported](#) that Mowi was one of several salmon farming companies "under investigation for possible misreporting of chemical use".



The image is a screenshot of a BBC News article. At the top, there is a navigation bar with the BBC logo, 'Your account', and links for News, Sport, Weather, iPlayer, and Sounds. Below this is a red banner with the word 'NEWS' in white. Underneath the banner are several category links: Home, UK, World, Business, Politics, Tech, Science, Health, and Family & Education. The 'Scotland' link is highlighted. Below the categories, there are more specific regional links: Scotland Politics, Scotland Business, Edinburgh, Fife & East, and Glasgow & West. The main headline of the article is 'Salmon farming giant Mowi probed over chemical use'. Below the headline, it says 'By Lucy Adams, BBC Panorama' and '© 20 May 2019'. There are social media sharing icons for Facebook, Messenger, Twitter, Email, and a 'Share' button. Below the text is a large photograph showing a wide expanse of water with numerous circular salmon farming pens. A small boat is visible in the foreground. At the bottom of the photo, there is a caption: 'Mowi operates numerous fish farms in Scotland'.

The world's biggest salmon farming company is one of a number of firms under investigation for possible misreporting of chemical use.

Please therefore provide information relating to the possible misreporting of chemical use in salmon farming since 2017.

Please include emails, letters, internal discussions, Cabinet Briefings and any other information relating to the misreporting of chemical use in salmon farming.

SEPA claimed in an email dated 6 November 2019 ([disclosed via F0191629 on 12 May 2020](#)) that:

SEPA is already involved in discussions at a national/UK level with the Veterinary Medicine Directorate (VMD) about formalin and other chemicals used in freshwater and marine aquaculture.

Please provide information on those discussions with the VMD and other government agencies since 2017.

Finally, please note that Scottish Salmon Watch's [letter to SEPA, Scottish Ministers and the VMD dated 26 June 2019](#) included the recommendation that a public register be established; namely:



Scottish Ministers: scottish.ministers@gov.scot
Scottish Environment Protection Agency: terry.ahern@sepa.org.uk
Veterinary Medicines Directorate: postmaster@vmd.defra.gsi.gov.uk

26 June 2019

Public Register of ALL toxic chemical use on Scottish salmon farms & Immediate Ban on Carcinogenic Formaldehyde (Formalin)

Scottish Salmon Watch asks for inter-governmental co-operation to establish a public register of ALL toxic chemicals used on Scottish salmon farms.

As far as we understand it, only data detailing use of the sea lice chemicals Azamethiphos, Cypermethrin, Deltamethrin, Emeamectin Benzoate and Teflubenzuron is [published via the Scotland's Aquaculture web-site](#) (and even here the use of Azamethiphos and Deltamethrin via well boats is [understand to be unreported](#) although we believe this anomaly may soon be rectified).

Data on the use of [Hydrogen Peroxide](#) (which has [sky-rocketed over the last decade](#) - along with the [use of sea lice chemicals](#)), [Antibiotics](#) and other toxic chemicals such as the carcinogenic [Formaldehyde \(Formalin\)](#) is not routinely published except [via Freedom of Information](#).

The [confusion](#) regarding the use of [Formaldehyde \(Formalin\)](#) as [either a biocide or prescribed by a veterinarian via the 'Cascade'](#) illustrates the need for clarity in reporting and the urgent need for a public register.

The use of [Formaldehyde \(Formalin\)](#) by salmon farms in Scotland is an interesting case study which warrants further investigation.

Could you please now add Imidacloprid to that list?

Please consider this a formal request for information under the relevant FOI and Environmental Information Regulations; namely:

1) Please provide details on any proposed, in progress and completed field trials of Imidacloprid (Ectosan/BMK08) by the salmon farming industry in Scotland since 2017.

2) Please provide information relating to the possible misreporting of chemical use in salmon farming since 2017.

3) Please provide information on discussions at a national/UK level with the VMD and other government agencies about Formalin and other chemicals used in freshwater and marine aquaculture since 2017.

Please include emails, letters, internal discussions, Cabinet Briefings, reports, environmental assessments and any other information relating to the above since 2017.

Please provide a receipt for this FOI request.

Please provide the information electronically.

Please note that further information in relation to the use of Imidacloprid (Ectosan/BMK08) in salmon farming has been posted earlier today via [Secret Trials: Scottish Salmon Doused with Bee-Killing Insecticide Imidacloprid?](#)

Please also note our [Letter to SEPA: Please Come Clean on Imidacloprid!](#) - this letter and our letter dated 17 March 2020 are both re-enclosed here for easy reference.

Yours sincerely,

Don Staniford

Director, [Scottish Salmon Watch](#)

Cc:

Scottish Parliament's Environment, Climate Change and Land Reform Committee:
ecclr.committee@parliament.scot

Scottish Natural Heritage: cathy.tilbrook@nature.scot and katie.gillham@nature.scot



Scottish Ministers: scottish.ministers@gov.scot

Scottish Environment Protection Agency: terry.ahearn@sepa.org.uk

Veterinary Medicines Directorate: postmaster@vmd.defra.gsi.gov.uk

17 March 2020

Concerns & Questions Over Imidacloprid Use in Scottish Salmon Farming

Scottish Salmon Watch is [shocked to discover](#) that the use of the toxic neonicotinoid insecticide Imidacloprid ([banned for outdoor use in terrestrial farming by the European Union in 2018 due to a growing weight of scientific evidence that it is harmful to bees and other pollinators](#)) may have already been used in Scotland via Benchmark's 'CleanTreat' system via secret trials.



Benchmark's CleanTreat system is essential for the roll-out of its anti-lice treatment BMK08. Photo: Benchmark.

Could you please provide answers to the following questions:

- 1) How much Imidacloprid ([marketed as BMK08 since 2019](#) - and [previously known as Ectosan when first launched in 2017](#)) has already been used in Scottish salmon farming? (please indicate where and when Imidacloprid was used and by which companies).
- 2) Where, when and in what quantities did the discharge and/or disposal of Imidacloprid contaminated wastes take place?

Last month, Scottish Salmon Watch [filed an appeal with the Scottish Information Commissioner](#) following [SEPA's refusal to disclose information on CleanTreat \(including BMK08/Ectosan\)](#). Scottish Salmon Watch asked for an internal review of another FOI

refusal by SEPA in a [letter dated 21 February 2020](#) and asked for an internal review of the Scottish Government's FOI refusal in a [letter dated 21 February 2020](#).

 **Don Staniford**
@TheGAAIA

Please come clean on BMK08! Why is @ScottishEPA & @GreenerScotland refusing to disclose details on Clean Treat? @WeAreBenchmark tinyurl.com/wlmyx8q Whilst investors pump in £££££s the public are kept in the dark @FOIScotland @undercur @thefishsite @IntraFishNorge @SSPOsays



11:44 AM · Feb 27, 2020 · Twitter Web App

 **Don Staniford**
@TheGAAIA

"Submission of our regulatory dossier for BMK08, our novel sea lice treatment, is a significant milestone" @WeAreBenchmark tinyurl.com/uapfokz "needs separate approval in each of the countries" @ScottishEPA What is BMK08? Will the public find out how toxic AFTER approval?!



6:30 AM · Feb 29, 2020 · Twitter Web App

In December 2019, Scottish Salmon Watch [revealed](#):

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 whereby 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

In June 2019, Scottish Salmon Watch [wrote to Scottish Ministers calling for a public register of ALL toxic chemicals used on Scottish salmon farms](#).



Scottish Ministers: scottish_ministers@gov.scot
Scottish Environment Protection Agency: terry.ahearn@sepa.org.uk
Veterinary Medicines Directorate: postmaster@vmd.defra.gsi.gov.uk

26 June 2019

**Public Register of ALL toxic chemical use on Scottish salmon farms
& Immediate Ban on Carcinogenic Formaldehyde (Formalin)**

Scottish Salmon Watch asks for inter-governmental co-operation to establish a public register of ALL toxic chemicals used on Scottish salmon farms.

As far as we understand it, only data detailing use of the sea lice chemicals Azamethiphos, Cypermethrin, Deltamethrin, Emamectin Benzoate and Teflubenzuron is [published via the Scotland's Aquaculture web-site](#) (and even here the use of Azamethiphos and Deltamethrin via well boats is [understand to be unreported](#) although we believe this anomaly may soon be rectified).

Data on the use of [Hydrogen Peroxide](#) (which has [sky-rocketed over the last decade](#) - along with the [use of sea lice chemicals](#)), [Antibiotics](#) and other toxic chemicals such as the carcinogenic [Formaldehyde \(Formalin\)](#) is not routinely published except [via Freedom of Information](#).

The outstanding question is: has Imidacloprid already been used without public consultation or notification by the salmon farming industry in Scotland?

"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."



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](#).

[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 "tried 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

[#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:neil@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



INVESTORS
IN PEOPLE

Accredited
Until 2020



[#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.

- 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.

[#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]
[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]
[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

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".

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-19-01398 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 [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] 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] 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]

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

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]

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



**Benchmark
Animal Health**

Bush House, Edinburgh Technopole, Edinburgh, EH26 0BB

Read more via [CleanTreat FOI Disclosures by the Scottish Government to Scottish Salmon Watch](#)

Secondly, if Imidacloprid has been already used by the salmon farming industry in Scotland, where has it been discharged and/or disposed of?

Documents [disclosed to Scottish Salmon Watch by the Scottish Government via FOI-19-01398 in July 2019](#) included:

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] [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.

[Redacted]

Regards

[Redacted]

Sent from my BlackBerry 10 smartphone.

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]

[Notes from May 2018](#) referred to the prospect of using presently unlicensed chemicals "as the environmental impact is too great" via the CleanTreat system "as there would be no discharge".

Notes from Presentations at Aquaculture Conference - May 2018

[Redacted] [Redacted]

[Redacted]

CleanTreat [Redacted]

- 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

[Redacted]

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

[Redacted],
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]

[Redacted]

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.

Answers to the two questions outlined above would be much appreciated. Scottish Salmon Watch is extremely concerned at the direction the salmon farming industry is headed, [especially with the SSPO's attempts to exploit the Coronavirus crisis by exceeding maximum permitted biomass limits](#). The palatability of Scottish salmon - to both consumers and investors - will surely be tested to the limit by the [shocking revelation regarding the toxic neonicotinoid insecticide Imidacloprid](#). It is even more alarming that both SEPA and the Scottish Government have acted to bury the bad news - something which [Scottish Salmon Watch is seeking the Scottish Information Commissioner to overturn](#).

Yours sincerely,

Don Staniford

Director, [Scottish Salmon Watch](#)

Cc:
Scottish Natural Heritage
Scottish Green Party
Scottish Environment LINK



Terry A'Hearn
Chief Executive
Scottish Environment Protection Agency
Strathallan House
Castle Business Park
Stirling
FK9 4TZ

17 March 2020

Dear Sir,

**Neonicotinoid insecticide Imidacloprid use in Scottish salmon farming
via Benchmark's BMK08 (Ectosan) & CleanTreat**

Further to Scottish Salmon Watch's [renewed FOI request earlier today on discharges and disposal of Imidacloprid, BMK08, Ectosan and CleanTreat](#) and [our appeal filed last month with the Scottish Information Commissioner](#), could you please re-consider SEPA's refusal to disclose basic information on the use of this highly toxic Neonicotinoid insecticide by the salmon farming industry in Scotland?

The news that Ectosan - [first publicised by Benchmark in 2017](#) and [re-branded as BMK08 in 2019](#) although it [first surfaced as D10 Aquatic Blast in 2014](#) - is the toxic chemical Imidacloprid ([banned in the UK in 2018 or use in terrestrial agriculture](#)) is shocking.



Read more via: [Revealed: Toxic Neonicotinoid Insecticide Used to 'CleanTreat' Lousy Scottish Salmon](#)

Why has SEPA met privately with Benchmark at least five times in the last 18 months and discussed secret trials with industry yet has failed to notify the public or issue a public consultation?

In November 2019, SEPA refused another [FOI request](#) on CleanTreat but conceded:

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

Documents [disclosed to Scottish Salmon Watch by the Scottish Government via FOI-19-02443 in December 2019](#) included:

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



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

Last month, Scottish Salmon Watch [filed an appeal with the Scottish Information Commissioner](#) following [SEPA's refusal to disclose information on CleanTreat \(including BMK08/Ectosan\)](#).

Appeal by Scottish Salmon Watch re. SEPA's F0191198



Scottish Salmon Watch's [appeal dated 21 February 2020](#) included:

Scottish Salmon Watch argues that SEPA's review refusal [dated 13 December 2019](#) wrongly concluded that commercial confidentiality took precedence over public disclosure:

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.

Scottish Salmon Watch believes that there is a clear public interest in disclosure as well as a growing public interest in this issue. For example, The Sunday Times reported on 29 December 2019: "[Official fears revealed over toxic threat of salmon trade](#)".

Scottish Salmon Watch considers such a refusal by SEPA is unreasonable and does not see an overriding public interest in protecting commercial or industrial information. The public interest is surely served best by disclosing specific details on CleanTreat (including the active ingredients in BMK08 & Ectosan - the subject of another FOI to SEPA and the Scottish Government which have been refused). Secret trials [took place two decades ago in Scotland in relation to Calicide \(Teflubenzuron\)](#) and that [did not end well](#).

The public case for disclosure is much stronger than the case for protecting commercial confidentiality. It is obvious that Benchmark (as the manufacturer of the CleanTreat system) is a company which wants to maximise investment, profit and economic returns by delaying disclosure.

However, SEPA's duty is not to the shareholders of Benchmark but to the Scottish environment and the Scottish public whose livelihoods may be impacted by the Norwegian and other foreign investors controlling Benchmark.

Scottish Salmon Watch asked for an internal review of another FOI refusal by SEPA in a [letter dated 21 February 2020](#):

21 February 2020

Review re. F0191311 re. BMK08 & Ectosan

Please consider this a formal request for a review of SEPA's refusal dated 7 January 2020 (via F0191311) to Scottish Salmon Watch's FOI request dated 5 December 2019 (received by SEPA on 10 December 2019). For easy reference please find enclosed below the Appendix the FOI request and refusal.

Scottish Salmon Watch strongly objects to SEPA's refusal which cited commercial confidentiality; namely:

Response

SEPA holds a small amount of correspondence which falls into the scope of the request.

This information is excepted under Regulation 10(5)(e) of the EIRs. The text of which is reproduced below;

- (5) *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:-*
- (e) *the confidentiality of commercial or industrial information where such confidentiality is provided for by law to protect a legitimate economic interest;*

Feedback had been sought from the third party who confirmed that disclosure of information would cause substantial prejudice to their commercial interests. We recognise that Regulation 10(2)(b) requires SEPA to apply a presumption favour of disclosure. 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

Scottish Salmon Watch's [review letter to SEPA](#) concluded:

The public interest is surely better served by disclosure rather than the dubious excuse of protecting commercial interests.

Surely SEPA should be placing environmental protection ahead of the protection of economic interests?

It seems that SEPA, by aiding and abetting privacy, are effectively promoting rogue/insider trading. Benchmark, by failing to publicly disclose basic information on BMK08 & Ectosan, are guilty of potentially misleading investors and the public alike.

Surely the public has a right to know what BMK08 actually is; how it is going to be used and how it is going to be discharged in Scotland? Only then, with full disclosure, can investors and the public make a wholly informed decision as to the acceptability of BMK08 & Ectosan. SEPA has no jurisdiction blocking public scrutiny.

SEPA should also be aware that later today Scottish Salmon Watch will be filing an appeal in relation to F0191198 on CleanTreat with the Scottish Information Commissioner. Scottish Salmon Watch looks forward to taking a similar case in relation to F0191311.

Fish Farming Expert [reported \(28 February 2020\)](#) that BMK08 was "in the hands of regulators" but the public (including investors) are still in the dark.

fishfarmingexpert

Search Calendar Salmon-Jobs Login

Community Fish Health Lice Politics & Government Production Archive Opinion

Home > News > New lice treatment now in hands of regulators

New lice treatment now in hands of regulators

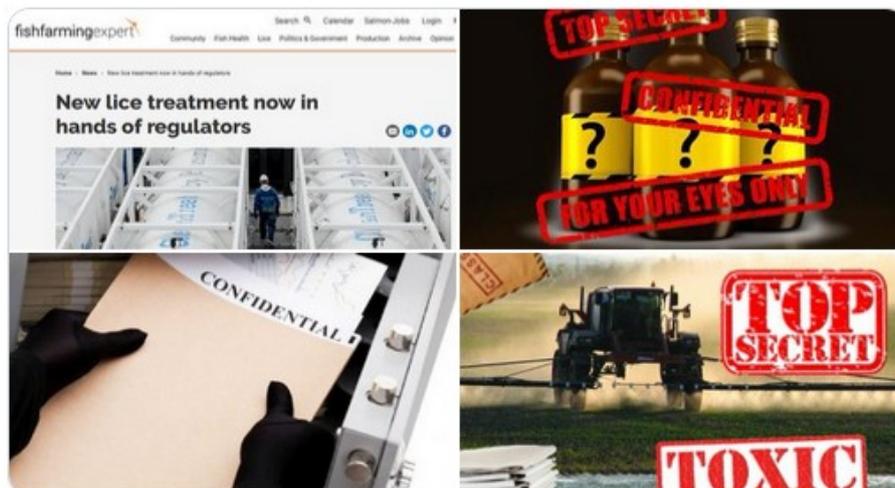


BMK08 is designed to be used in conjunction with CleanTreat, which removes chemical and lice residues from treatment water. Photo: Benchmark.



Don Staniford
@TheGAAIA

"Submission of our regulatory dossier for BMK08, our novel sea lice treatment, is a significant milestone" [@WeAreBenchmark](#) tinyurl.com/uapfokz "needs separate approval in each of the countries" [@ScottishEPA](#) What is BMK08? Will the public find out how toxic AFTER approval?!



6:30 AM · Feb 29, 2020 · [Twitter Web App](#)

What scientific research has SEPA conducted on the toxicity and environmental impact of Imidacloprid?

Imidacloprid is [classified as an 'Environmental Hazard'](#) with the warning that it is "very toxic to aquatic life with long lasting effects" and "hazardous to the aquatic environment, long-term hazard".

PubChem Imidacloprid (Compound)

12 Safety and Hazards



12.1 Hazards Identification



12.1.1 GHS Classification



Showing 1 of 4 [View More](#)

Pictogram(s)	  Irritant Environmental Hazard
Signal	<u>Warning</u>
GHS Hazard Statements	H302: Harmful if swallowed [<u>Warning</u> Acute toxicity, oral] H400: Very toxic to aquatic life [<u>Warning</u> Hazardous to the aquatic environment, acute hazard] H410: Very toxic to aquatic life with long lasting effects [<u>Warning</u> Hazardous to the aquatic environment, long-term hazard]

The Scottish Wildlife Trusts [called for a ban on pesticides containing Imidacloprid back in 2012](#).

In April 2018, the [European Commission \(following an assessment by the European Food Safety Authority\)](#) [banned Imidacloprid for use on outdoor crops due to risks to bees](#). "Unless the scientific evidence changes, the government will maintain these increased restrictions post-Brexit," [stated DEFRA in a press release in April 2018](#).

The weight of scientific evidence on the toxicity of Imidacloprid especially in the aquatic environment is increasingly clear and alarming.

In December 2017, [the Rivers Trust reported](#) that "Aquatic insects are just as vulnerable to neonicotinoid insecticides as bees and flying insects..... 88% of sites in Britain were contaminated with neonicotinoids, eight rivers in England exceeded recommended chronic pollution limits, and two were acutely polluted."

Imidacloprid, [according to the Material Safety Data Sheet of one of the insecticide formulations on the market](#), is "highly toxic to aquatic invertebrates" and the chemical company warns users "do not apply directly to water" and "do not contaminate water when disposing of equipment washwaters".

MATERIAL SAFETY DATA SHEET Quali-Pro® Imidacloprid 2F Turf & Ornamental

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Another [Imidacloprid formulation warns](#):

Kohinor 350 SC

Synonyms

Imidacloprid 350 SC



Signal word

Warning

Hazard Statements

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children

P501 - Dispose of contents/ container to an approved waste disposal plant

A scientific paper - "[Acute Toxicity of Imidacloprid on the Developmental Stages of Common Carp *Cyprinus carpio*](#)" - published in October 2019 concluded: "The results suggest that the minimum concentration of 10 µg/L imidacloprid in the aquatic environment may have adverse effects on the embryonic and larval stages of common carp".

A scientific paper - "[Effects of insecticides, fipronil and imidacloprid, on the growth, survival, and behavior of brown shrimp *Farfantepenaeus aztecus*](#)" - published in PLOS One in October 2019 reported: "Under imidacloprid, survivorship decreased from 100% in the control to 33.33% in the 320.0 µg/L treatment.... We conclude that, at the corresponding EPA benchmark concentrations, fipronil had more lethal effects than imidacloprid, and imidacloprid had more sub-lethal effects than fipronil. Both effects are of serious concern, and we suggest monitoring is necessary in estuaries."



Imidacloprid and formulated product impacts the fatty acids and enzymatic activities in tissues of Sydney rock oysters, *Saccostrea glomerata*

Endurance E. Ewere^{a, b}, Amanda Reichelt-Brushett^a, Kirsten Benkendorff^a  

Highlights

- Imidacloprid (IMI) accumulates in the tissues of Sydney rock oysters (SRO) exposed to formulated or pure IMI.

Abstract

The use of imidacloprid (IMI) and its formulated products in agriculture is a risk to aquatic organisms due to deposition into waterways from runoff and aerial spraying. However, there is limited information on the potential effects of this pesticide on commercially important shellfish, such as oysters. We investigated the impacts of IMI and Spectrum 200SC (IMI formulation) on the activity of the enzymes Glutathione-S-transferase (GST), Catalase (CAT) and Acetylcholinesterase (AChE), in different oyster tissues including the gill, adductor muscle and digestive gland. We also investigated the condition index and fatty acid composition of the flesh of oysters after 2 weeks exposure. The concentrations of IMI in the different tissues was assessed using Liquid Chromatography-Mass Spectrometry (LC-MS) after QuEChERS extraction. Higher concentrations of IMI residues were detected in the adductor muscle of the oysters, followed by the gills and with the lowest amounts recovered from the digestive gland across all the concentrations tested. IMI and Spectrum 200SC significantly affected the gill AChE activity at 2 mg/L, but digestive gland CAT, and gill and digestive gland GST were impacted at environmentally relevant concentrations (0.01 and 0.05 mg/L). In the whole oyster, 2 weeks exposure to IMI (≥ 0.01 mg/L) resulted in a proportional increase in saturated fatty acids (SFA), altered the polyunsaturated fatty acid (PUFA) to SFA ratio and altered the omega 3 fatty acids (*n*-3) to omega 6 fatty acids (*n*-6) ratio, but there were no effects on the condition index of the oyster. Although the oysters responded differently to the formulated product, there was no consistent difference in the sublethal effects of analytical IMI and Spectrum 200SC. This study showed that exposure to IMI and Spectrum 200SC can significantly affect the biochemical processes and metabolites in oysters, with implications for food quality and safety.

The use of Imidacloprid in aquatic environments and in aquaculture is environmentally hazardous. North America Aquaculture [reported in April 2018](#):

Aquaculture North America

≡ MENU NEWS FEATURES PRODUCTS OPINION EVENTS ENEWS MAGAZINE ▾

Pesticide banned in oyster farming

The Washington Department of Ecology has banned a pesticide that was approved two years ago for oyster growers to kill burrowing shrimp.

The department said it made the decision after a lengthy evaluation of the environmental impacts of the pesticide, imidacloprid. The pesticide belongs to a class of chemicals called the neonicotinoids, which act on the central nervous system of insects.

The state announced Monday that it is too harmful to the ecosystem and decided to deny a request for its approval.

“The science around imidacloprid is rapidly evolving and we can’t ignore it. New findings make it clear that this pesticide is simply too risky and harmful to be used in Washington’s waters and estuaries,” state Ecology Director Maia Bellon said in a press release.

The Associated Press [reported in December 2019](#):

Oyster growers abandon push to use imidacloprid, a controversial insecticide

| Associated Press
Updated 2:46 AM EST Dec 13, 2019

LONG BEACH, Wash. (AP) — A southwest Washington oyster growers association has abandoned a drive to use a controversial insecticide that combats burrowing shrimp, a creature that can make tidelands unfit for shellfish farming.

The Seattle Times reports that in a settlement reached last week, the Willapa Grays Harbor Growers Association agreed to accept a 2018 state Ecology Department denial of the proposed use of imidacloprid and drop an appeal to the state Pollution Control Hearings Board.

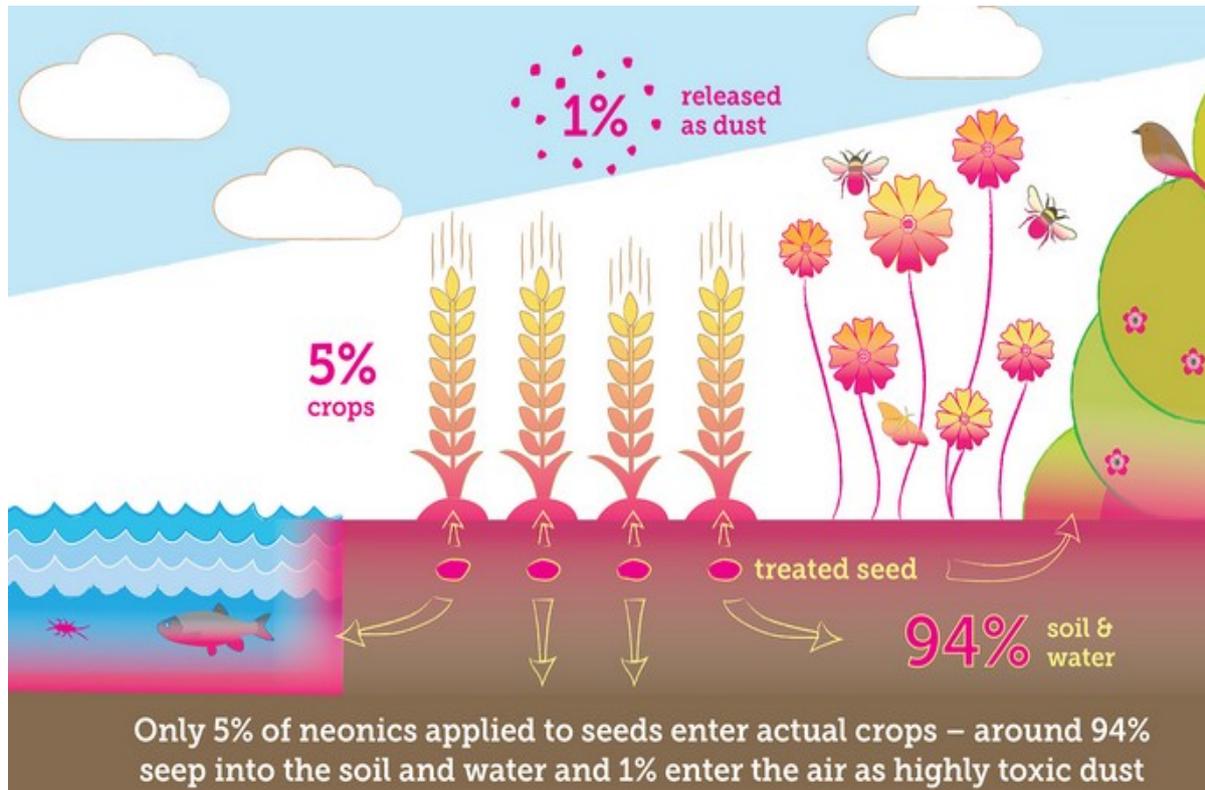
The growers wanted to use the insecticide to spray up to 500 annually of the more than 12,000 acres of tidelands used for shellfish cultivation in Willapa Bay and Grays Harbor. Without the spray, the growers say they lose productive tidelands to the shrimp, which churn up sediment and can cause oysters, as well as clams, to suffocate in the muck.

Read more on the toxicity of Imidacloprid via:

["Contamination of the Aquatic Environment with Neonicotinoids and its Implication for Ecosystems"](#) (Frontiers in Environmental Science, November 2016)

["Effects of neonicotinoids and fipronil on non-target invertebrates"](#) (Environ. Sci. Pollu. Res. Int., September 2015)

The Soil Association (which certify salmon farms in Scotland as 'organic') are [vehemently opposed to the use of Imidacloprid and other neonicotinoids](#).



So why is SEPA protecting commercial confidentiality and industrial secrets rather than protecting the environment?

SEPA's [case history with Emamectin benzoate \(Slice\)](#) hardly inspires confidence that it has everything under control regarding Imidacloprid.

For example, why is no data publicly available for the use of Imidacloprid (and other chemicals such as Azamethiphos and Deltamethrin) at [Benchmark's FAI Aquaculture laboratory at Ardtoe](#) where [CleanTreat has been developed over the last decade](#)?

Scottish Salmon Watch cannot find any data posted via [SEPA's Scottish Pollutant Release Inventory](#) or the [Scotland's Aquaculture web-site](#).

Could you please publish details of the use of Imidacloprid by the salmon farming industry in Scotland (I don't see Imidacloprid [listed via SPRI](#) at all)?

SEPA seem to have forgotten the sobering lesson of Teflubenzuron. As ['Silent Spring of the Sea'](#) (a chapter in the 2004 book ['A Stain Upon the Sea'](#)) detailed:

Teflubenzuron (Calicide)—A hazardous, wasteful and persistent marine pollutant

Teflubenzuron is a highly hazardous marine pollutant, lethal to shellfish in tiny doses, extremely persistent in the sediment under salmon cages and in the flesh of farmed salmon, and a suspected carcinogen. Hardly a suitable candidate for use on sea cage salmon farms, yet that is what salmon farmers reached for when they needed to replace dichlorvos and azamethiphos.

Teflubenzuron is a benzoylphenyl urea insecticide, initially introduced in 1984 to protect fruit, vegetables and cotton. By the 1990s, though, chemical resistance was already being reported in land-based pests,¹⁷³ so Nutreco (owners of Marine Harvest), in conjunction with the US chemical giant American Cyanamid, developed teflubenzuron (trade name Calicide) for aquaculture. Sea cage fish farming is in danger of becoming a dumping ground for chemicals which are past their sell by date on land.

Speaking to the *West Highland Free Press* in August 2000, scallop farmer David Oakes said: “Why was no work done on the effects of the chemical on scallops? The chemical affects the shells of the sea lice and it is likely it will affect shellfish as well, especially in the larval stages. There is evidence to show that the chemical is still to be found in the seabed six months after it was used.”¹⁹⁰ Oakes gained this inside knowledge in 1999 when he was approached by a scientist working at a university in Scotland. The scientist had damning evidence concerning teflubenzuron, but wanted to remain anonymous. “Deep Trout” accused the Scottish government of failing to protect the marine environment and the shellfish farming industry.

Deep Trout’s “Calicide Critique,” widely circulated on the internet and submitted officially to the Scottish government and Nutreco, stated: “The prima facie evidence is that teflubenzuron will be highly toxic to shellfish. SEPA are therefore grossly ignorant of the range of species that will be directly affected by teflubenzuron. The lethal effects are: by prevention of growth in the Arthropoda; prevention of movement in the Annelida and death by starvation and internal damage in the Mollusca. There have been no studies of long term ecological effects of the use of teflubenzuron. They could be immense but have not been considered in its proposed use as Calicide.”¹⁹¹

Deep Trout made a big splash in the Sunday papers. The *Sunday Herald* reported: “David Oakes, who requested the ‘Deep Trout’ report, has been denied access to the scientific evidence which led SEPA to accept that Calicide

was safe. He was told that Trouw's (a subsidiary of Nutreco) commercial interests overrode the need for openness."¹⁹² SEPA's pollution control specialist Andy Rosie told the *Sunday Herald* that "the claims made by Deep Trout are taken seriously." He admitted that SEPA's case was weakened by the fact that studies commissioned by Nutreco were still not available for peer-review. "At the very least the papers we have cited should be available. We will be negotiating with Nutreco to say that these papers should be in the public domain."

SEPA finally persuaded Nutreco to make some of the documents available for public inspection in February 2001, but they came in a straitjacket. In a letter to David Oakes, SEPA explained: "Nutreco retains copyright and intellectual property rights to most of these documents so SEPA is not able to provide you with copies. If you do wish to obtain a copy of any particular document, once you have viewed these, I would recommend you contact Nutreco directly."¹⁹³

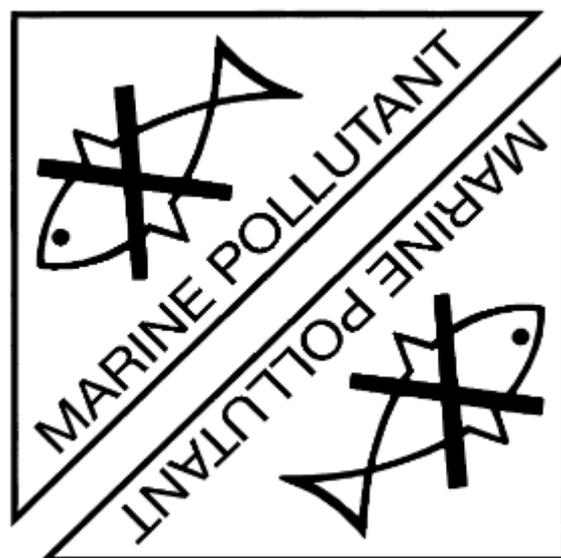
Subsequently, I visited SEPA offices to view a mountain of documents marked "Private and Confidential." I was given only a short time to peruse the material and was not allowed to make photocopies, but it soon became obvious why Nutreco might want to keep a lid firmly shut on these ecotoxicological studies. Different reports showed that teflubenzuron can persist in sediment for nearly two years at distances up to one kilometre away from the salmon cages; it can have "significant lethal effect on lobster juveniles fed salmon pellets containing as little as 0.5g feed additive per kg pellets"; 90 to 95 percent of the compound was excreted into the environment via feces"; "the highest concentrations were found 408 days after treatment"; teflubenzuron was still present 654 days after treatment; and it could bioaccumulate up through the food chain via filter-feeders such as scallops and mussels.¹⁹⁴

The day after I viewed these documents, Nutreco's PR adviser Colin Ley rang me up. "How was your visit to SEPA yesterday?" he asked. "If there are any specific queries, please let us know—it would be much better to talk things through with us first before you make any public comments." Needless to say Nutreco read about the reports in the weekend's Sunday papers. "A controversial pesticide approved for use on 61 salmon farms in Scotland is classed as a highly toxic marine pollutant and can still be found in sediment on the sea bed nearly two years after use, according to documents revealed this week," reported the *Sunday Herald*.¹⁹⁵

SEPA's role in authorizing teflubenzuron is typical of the manner in which governments in Norway, Canada, Chile and Ireland have allowed private profit to outweigh the public interest. SEPA's current policy on teflubenzuron

zuron was published in July 1999 and is based almost exclusively on Nutreco's unpublished private and confidential reports. The impact of teflubenzuron on crustacea such as lobsters is of primary concern, and SEPA's policy admits that teflubenzuron "is potentially highly toxic to any species which undergo moulting in their life cycle." As SEPA points out in the "environmental risk assessment": "This will therefore include some commercially important marine animals such as lobster, crab, shrimp and some zooplankton species."¹⁹⁶ In spite of this, SEPA began handing out licences to use teflubenzuron in 2000 and by March 2004 had issued 212.¹⁹⁷

Meanwhile, the case against teflubenzuron is building all the time.¹⁹⁸ Little wonder then that salmon farmers want to bury the evidence. When a secret trial on its environmental impact was conducted in 1996 in the waters around the Isle of Skye, the first the locals knew about it was when their shellfish started dying. "We were unaware of the use of teflubenzuron until massive crab, prawn, squat lobster, and sea urchin deaths were observed in Lochbay," claims Aileen Robertson, who runs a diving centre in the area. "Scallop divers had to move to another sea loch, and the creel fisherman had to stop fishing. Even staff at the fish farm were alarmed to hear what was going on and gave us labels for the medicated food they had been given to use. We got the safety data, worked it out, and called the Scottish Environment Protection Agency. They had given consent for its sea trial with no public notification or advertisement. How do they get away with it?!" (Aileen Robertson, pers. comm.)



The Guardian [reported in 2013](#):

Fish company investigated after salmon farm pollutes Scottish loch

Marine Harvest, one of the largest fish-farming companies, is under investigation after polluting loch with pesticide

Severin Carrell, Scotland correspondent

@severincarrell
Fri 10 May 2013 12.08 BST



34



▲ Caged Scottish Salmon. Photograph: Alamy

Marine Harvest, one of the world's largest fish-farming companies, is under investigation after its salmon farms polluted a Scottish loch with toxic pesticide residues hundreds of times above environmental limits.

Sampling tests around salmon cages on Loch Shell in the Outer Hebrides by the Scottish Environment Protection Agency (Sepa) found that levels of **Teflubenzuron**, used to kill sea lice parasites which affect hundreds of thousands of caged fish each year, were up to 450 times higher than recommended levels.

The agency could now cut back **Marine Harvest's** operations on Loch Shell where the firm has three fish farms, including one which was already under Sepa investigation, after it launched a review of its operations there.

The Sunday Herald [reported in 2015](#):

Salmon farm drug that kills wildlife to be withdrawn from market

from **Sunday Herald**, 10 May 2015

A toxic drug fed to caged salmon in Scotland is due to be withdrawn from the market after scientists found that it can leak into lochs and kill crabs, shrimps and lobsters.

Food pellets laced with a chemical called teflubenzuron have long been given to farmed salmon around the coast in order to control sea lice infestations. The lice eat salmon, killing them or stunting their growth, and can cause multi-million-pound losses for fish farmers.

But salmon excrete the chemical, which then pollutes the seabed around fish farms at levels that can be lethal to marine wildlife. Shellfish are poisoned and prevented from making new shells to protect them as they grow.



Now the **Scottish Environment Protection Agency (Sepa)** says it has persuaded the company that markets the drug to withdraw it. Campaigners, however, warn that replacement drugs could do just as much harm, and are demanding a much broader legal ban.

The Sunday Herald [reported in 2017](#):

IT'S OUR 18TH BIRTHDAY! THANK YOU READERS
DON'T MISS YOUR 8-PAGE SPECIAL EDITION SUPPLEMENT INSIDE, INCLUDING OUR BEST FRONT PAGES

sunday herald

26 February, 2017 £1.80

THE GREAT OUTDOORS
FREE MAGAZINE
INSIDE



PLUS TEN
AMAZING
WALKING
AND
CYCLING
ROUTES
NEWS P6





Revealed

Scandal of 45 Scottish lochs trashed by pollution

- Toxic pesticides from fish farms pose risk to human health and wildlife
- Contaminated lochs include Fyne, Linnhe, Broom, Ewe and Torridon

Exclusive report: Page 10

SCOTLAND TRIUMPH
FIRST SIX NATIONS WIN OVER WALES IN A DECADE IN SPORT





SADIQ KHAN FORCED INTO HUMILIATING U-TURN OVER 'INDY VOTERS ARE RACIST' CLAIM NEWS PAGE 4

OSCAR SPECIAL
HOW TO PARTY LIKE A HOLLYWOOD STAR IN YOUR LIVING ROOM
NEWS PAGES 12&13



THE 45 CONTAMINATED LOCHS

Inner Sound, Highland	Kilbrannan Sound, Argyll and Bute	Lax Firth, Shetland
Loch a Chairn Bhain, Highland	Loch Craignish, Argyll and Bute	Off Lunaness, Shetland
Loch Alsh, Highland	Loch Creran, Argyll and Bute	Olnafirth, Shetland
Loch Bracadale, Highland	Loch Fyne, Argyll and Bute	Ronas Voe, Shetland
Loch Broom, Highland	Loch Spelve, Argyll and Bute	Swarbacks Minn, Shetland
Loch Duich, Highland	Loch Tuath, Argyll and Bute	The Deeps, Shetland
Loch Ewe, Highland	Shuna Sound, Argyll and Bute	East Loch Tarbert, Eilean Siar
Loch Kishorn, Highland	Sound of Gigha, Argyll and Bute	Loch Boisdale, Eilean Siar
Loch Laxford, Highland	Sound of Jura, Argyll and Bute	Loch Erisort, Eilean Siar
Loch Linnhe, Highland	Sound of Mull, Argyll and Bute	Loch Roag, Eilean Siar
Loch Nevis, Highland	Cat Firth, Shetland	Loch Seaforth, Eilean Siar
Loch Sunart, Highland	Clift Sound, Shetland	Loch Shell, Eilean Siar
Loch Torridon, Highland	Clousta Voe, Shetland	Loch Skipport, Eilean Siar
Sound of Raasay, Highland	Colla Firth, Shetland	Lamlash Bay, North Ayrshire
Firth of Lorn, Argyll and Bute	Dury Voe, Shetland	

Source: Scottish Environment Protection Agency

So will SEPA be presiding over a similar case study in secrecy and toxicity with Imidacloprid?

Will SEPA be publishing a scientific dossier on environmental impacts of Imidacloprid ([as SEPA has done so via Emamectin benzoate](#))?

Will SEPA be conducting scientific studies and monitoring of impacts of Imidacloprid ([as it has done so via Emamectin benzoate](#))?

Will Bayer/Monsanto be making available to the public their 'Confidential' work on Imidacloprid ([or will the chemical company behind Imidacloprid be taking the Merck behind the scenes route](#))?

Indeed, does SEPA currently even have the power or jurisdiction to regulate the use of Imidacloprid via well boats?

A [redacted email dated May 2019](#) obtained from the Scottish Government in July 2019 via [FOI-19-01398](#) 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]

The move of licensing wellboat discharges from Marine Scotland to SEPA "may well be seized on" concedes a [redacted email dated December 2018](#):

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, ■■■■

The move of licensing wellboat discharges to SEPA (recommended back in 2016 by the Aquaculture Industry Leadership Group but still not completed as far as Scottish Salmon Watch understands) has "raised some challenges but it still under active consideration and we are hopeful to a conclusion" [states another redacted email dated December 2018](#).

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 – BAML 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 BAML 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 well overdue to be transferred 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]

Documents published by Scottish Salmon Watch in December 2019 via "[CleanTreat: FOI Disclosures by the Scottish Government to Scottish Salmon Watch](#)".

Scottish Salmon Watch [reported in October 2018](#):

Legislative & Licence Background:

A [letter dated 17 April 2018](#) from the Director of Marine Scotland to the Scottish Parliament's Environment, Climate Change & Land Reform Committee included:

'Wellboat licences'

Wellboat licences are issued by MS-LOT to fish farm operators to permit the discharge of chemotherapeutants following treatment for sea lice in a vessel (a wellboat). Such licences are only issued where a valid Controlled Activity Regulations (CAR) licence has been issued to the relevant fish farm site for discharge of chemotherapeutants following in-cage treatments by SEPA following its consideration of the environmental effects. The volumes permitted for discharge are the same as the CAR volumes and Marine and CAR licences are conditioned to prohibit the release of chemotherapeutant under one regime at the same time as the other, thereby avoiding cumulative effects.

Wellboat licences are issued for three (3) years.

MCA and NLB have confirmed they will not provide routine comment on the applications for 'wellboat licences' as there is not a navigational element.

SEPA has provided standing advice that it has no objection to 'wellboat applications' provided the type and amount of chemical used and discharged will not exceed that specified in the respective CAR licence. An agreed condition is added to licences which prevents the simultaneous discharge from bath treatments.

SNH is consulted where such activity takes place in a European site, and advise of the likely significant effects. SNH directs MS-LOT to advice given by SNH during the CAR licensing process. MS-LOT would look to adopt the 'appropriate assessment' carried out by the SEPA as the competent authority under The Conservation (Natural Habitats, &c.) Regulations 1994. Again, a similar process occurs where SNH advise that an activity may affect the feature of a Marine Protected Area (MPA).

In May 2018 the [Scottish Aquaculture Industry Leadership Group](#) reported:

Scottish Aquaculture Industry Leadership Group Meeting 22nd May 2018 Agenda and Actions Note

CW summarised findings of research commissioned by HIE on behalf of the AILG on future skills requirements for the industry including supply chain. Next steps will include drafting of a skills action plan. AILG members repeated previous requests for Marine Scotland to provide site specific advice on sea lice. MP reported on progress across the 8 'quick wins' arising from the consenting review (<http://www.gov.scot/Resource/0052/00525256.pdf>). Aside from the transfer of wellboat discharge licensing from Marine Scotland to SEPA, these had all been completed or were well on track for completion (a workshop would be held in June to finalise the work on the EIA template and the Working Arrangements Document, with a view to sign off by July 2018.) On the transfer of wellboat licensing from Marine Scotland to SEPA, there continued to be legal questions requiring clarification but it was hoped a positive resolution of the legal issues could be reached within a few weeks.

The Scottish Aquaculture Industry Leadership Group [noted in February 2018](#):

MP updated on progress with the ICR recommendations. Detailed at <http://www.gov.scot/Resource/0052/00525256.pdf>
All projects were progressing well or had been completed. It was noted that on the integration of wellboat marine licences into the CAR regime the process was necessarily complex and would take time to work through. . would shortly be updated on the current state of play.

In January 2018, [the Farmed Fish Health Framework Working Group noted](#):

**Farmed Fish Health Framework Working Group (FFHFWG)
Meeting 2
30 January 2018
Note and Actions**

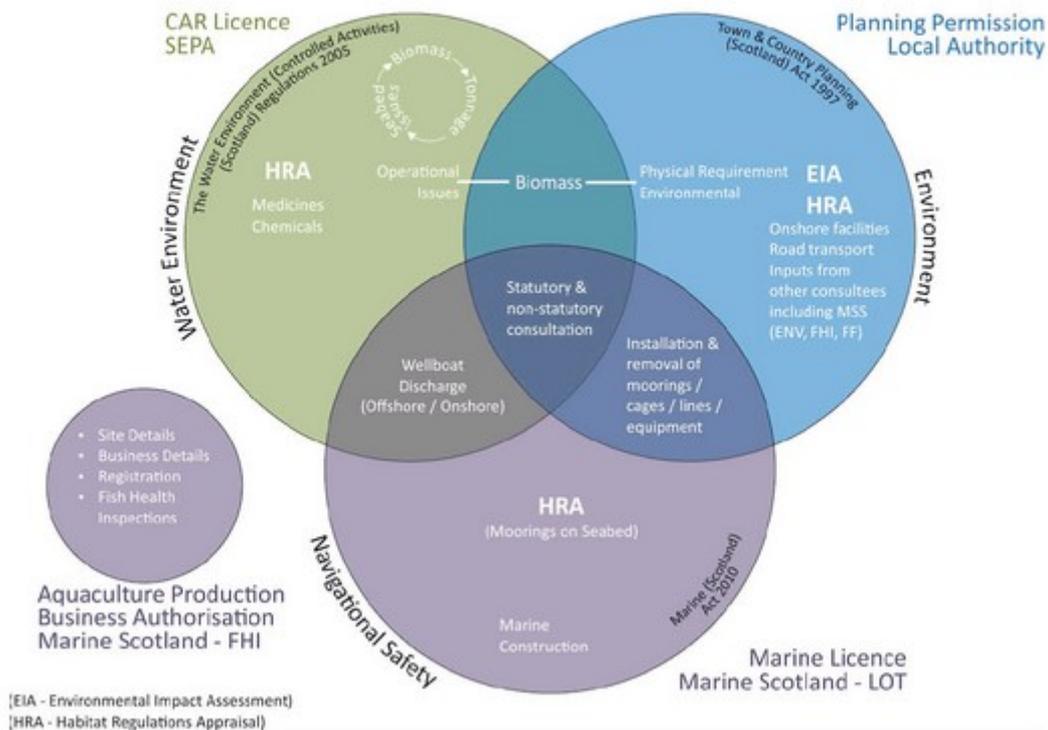
- It was noted the independent consenting review (ICR) recommendation on wellboat discharge licenses was outstanding.
- SG confirmed that an update would be provided at the next aquaculture industry leadership group and would be relayed to the farmed fish health working group at the next meeting.

Action: SG to keep FFHFWG updated with ICR wellboat discharge licence recommendation.

Marine Scotland
Secretariat
February 2018

An 'Independent Review of Scottish Aquaculture Consenting' [published by the Scottish Government in July 2016](#) identified "wellboat discharge" as overlapping in the consenting area for SEPA and Marine Scotland:

Figure 4.11: Venn diagram illustrating overlap in consenting areas for key regulators



The [report included](#) (p13):

A Ministerial Group on Aquaculture (MGA) was established in 2009 to oversee implementation of A Fresh Start, through six working groups. The MGA has since been replaced by the Ministerial Group for Sustainable Aquaculture (MGSA), which was established in 2013 to continue the work of the MGA and to support Scotland's aquaculture industry to achieve the 2020 growth targets. This includes the following working groups:

- Wellboats Working Group: considers standards for wellboats - tracking position, valve status & sea lice filtration.

And (p30):

4.2.4 Marine Licence

With respect to finfish and shellfish aquaculture, three types of activities require a marine licence(s):

- Equipment – including mussel lines, fish farm cages, walkways/pontoon;
- Moorings (i.e. deposits on the seabed); and
- Discharge of sea lice treatments from wellboats.

In relation to equipment and moorings, the marine licence focuses only on potential hazards to navigation and conditions may require appropriate markers and lighting. A separate marine licence for 'discharge of treatment agents' is also required for discharging from a wellboat. This is not focused on navigational safety and is not specifically needed to gain consent for a fish farm, but will be applied for during the operational phase, if required.

And (p53):

Table 6.1: Recommended quick wins

No.	Action	Responsibility
QW4	Integrate wellboat Marine Licence into the CAR Licence <ul style="list-style-type: none">• It is understood that this would require one additional sentence to be added to the CAR Licence.• It is assumed that this would cover all wellboat discharges.• It is noted that SEPA and the finfish industry support this consolidation of licences.	SEPA MS-LOT

And (p74):

Table 7.1: Summary of recommendations

No.	Actions
Quick Wins	
QW	<ol style="list-style-type: none">1. Strengthen the pre-application process2. Introduce consistent format for co-ordinates, site name and summary information3. Update of Working Arrangements document4. Integrate wellboat Marine Licence into the CAR Licence5. Update Scottish Aquaculture portal

Read more via "[All is Not Well With Sick Scottish Salmon: Unreported Use of Toxic Chemicals Via Wellboats Slips Net](#)"

Is Fergus Ewing's secret plan to rush through approvals for well boat use of Imidacloprid via licensing by Marine Scotland before the transfer of powers to SEPA? Certainly, it is [well known that Fergus Ewing is a huge supporter of CleanTreat](#) and [toxic chemicals such as Acetamidrid](#) - an insecticide similar to Imidacloprid - [even bullying colleagues over attempts to ban them](#).



Finally, when will SEPA publish data on well boat use of toxic chemicals used by the salmon farming industry (including any use of Imidacloprid) via the [Scottish Pollutant Release Inventory](#)?

Scotland's Aquaculture [web-site](#) states that: "This dataset does not include treatments carried out on wellboats. The full annual SPRI data returns inclusive of wellboat information can be found [here](#)".

It is shameful that data for 2018 is [still not publicly available](#).

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	
2018	Wester Ross Fisheries Limited Isle Martin MCFF, Loch	Loch Kanaird, East of Isle Martin, Ardmair, by Ullapool, Highland IV26 2TN	N/A	Not Yet Agreed	

[2017 SPRI data for Deltamethrin use](#) (which is understood to include use via well boats) is at least available with the worst users identified here:

Year	Registered Company Name (Site Name)	Total Release
2017	MARINE HARVEST (SCOTLAND) LIMITED. Soay Sound MCFF West Loch Tarbert	0.263
2017	The Scottish Salmon Company Ltd. Greanamul MCFF Isle of Benbecula	0.24
2017	Kames Fish Farming Limited. Castle Bay MCFF Shuna	0.174
2017	MARINE HARVEST (SCOTLAND) LIMITED. Carradale (North) MCFF Carradale	0.15
2017	MARINE HARVEST (SCOTLAND) LIMITED. Maol Ban East MCFF Caol Mor Isle of Skye	0.148
2017	Grieg Seafood Shetland Limited. Easter Score Holm MCFF Haddock Sands	0.14
2017	MARINE HARVEST (SCOTLAND) LIMITED. Sron MCFF Loch Alsh	0.135
2017	MARINE HARVEST (SCOTLAND) LIMITED. Cairidh MCFF Moll Isle Of Skye	0.125
2017	MARINE HARVEST (SCOTLAND) LIMITED. Carradale (South) MCFF Carradale	0.12
2017	MARINE HARVEST (SCOTLAND) LIMITED. Ardgour MCFF Loch Linnhe	0.12
2017	MARINE HARVEST (SCOTLAND) LIMITED. Colonsay MCFF Isle of Colonsay	0.12
2017	The Scottish Salmon Company Ltd. Sgeir Dughall Outer Loch Torridon	0.1
2017	MARINE HARVEST (SCOTLAND) LIMITED. Camas Glas MCFF Loch Sunart	0.1
2017	MARINE HARVEST (SCOTLAND) LIMITED. Noster MCFF Loch Seaforth Isle of Harris	0.094
2017	The Scottish Salmon Company Ltd. Maragay Mor MCFF Benbecula	0.09
2017	Dawnfresh Farming Ltd. Aird's Point MCFF Loch Etive	0.081
2017	Grieg Seafood Shetland Limited. Cole Deep MCFF Cole Deep	0.078
2017	The Scottish Salmon Company Ltd. Druimyeon Bay MCFF Isle of Gigha	0.076
2017	MARINE HARVEST (SCOTLAND) LIMITED. Marulaig Bay MCFF Loch Boisdale South Uist	0.075
2017	Skelda Salmon Farms Limited. Spoose Holm MCFF The Deeps	0.075
2017	Grieg Seafood Shetland Limited. East of Papa Little MCFF Shetland	0.069
2017	MARINE HARVEST (SCOTLAND) LIMITED. Bagh Dail nan Ceann MCFF	0.065
2017	Kames Fish Farming Limited. Kames Bay MCFF Loch Melfort	0.054
2017	Grieg Seafood Shetland Limited. Burwick West MCFF Bur Wick	0.052

Perhaps the general public will be able to access data on the use of Imidacloprid in 2023 and a public consultation will be rolled out by SEPA just before it is banned in 2028?

Yours sincerely,

Don Staniford

Director, [Scottish Salmon Watch](#)

