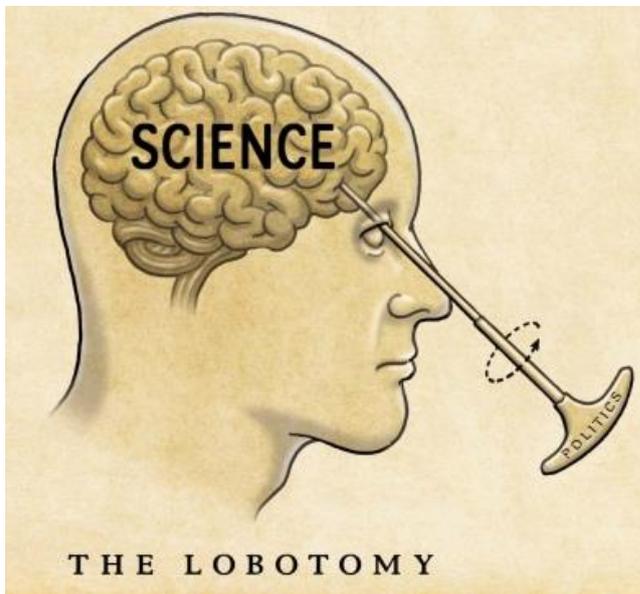


SliceGate: Anatomy & Chronology of an Environmental Lobotomy

- How the Scottish Environmental Protection Agency was Sliced to death by the Scottish Government and salmon farming lobby



Synopsis:

Documents disclosed via Freedom of Information by the Scottish Environment Protection Agency (SEPA) and the Scottish Government reveal a fascinating story of political intrigue, state-sponsored censorship, intimidation by big business and lobbying by the salmon farming industry which effectively muzzled Scotland's environmental watchdog and staved off a ban on a toxic chemical known to kill crustaceans such as lobsters.

Events played out predominantly in August 2016 - fleshed out in the form of emails obtained by the [Global Alliance Against Industrial Aquaculture](#) - reveal that plans by SEPA to ban Slice (Emamectin benzoate) manufactured by chemical giant Merck Sharpe Dohme were shelved following a last-minute intervention from the Scottish Government acting on behalf of the Scottish Salmon Producers Organisation (SSPO).

The email exchanges could be lifted from the pages of John Le Carre's political thriller 'The Constant Gardener' and echo the Watergate scandal as told in 'All the Presidents Men' (cue [#SliceGate](#)).

Award-winning environmental journalist Rob Edwards has tracked the story in a series of exclusive articles published in The Sunday Herald and The Ferret:

[Editorial: "Independent scrutiny is a cornerstone of democracy"](#)

[Sunday Herald: "Revealed: Scottish Government put pressure on Sepa to drop ban on toxic pesticide"](#)

[The Ferret: "Fish farm industry 'lashes out' on pesticide controls"](#)

[Editorial: "Welcome move in pesticide scandal"](#)

[Sunday Herald: "Fish farms industry now at war with SEPA over toxic-loch pesticide"](#)

[The Ferret: "Scottish Government under fire for helping block pesticide ban"](#)

[Editorial: "Holyrood must investigate pesticide claims"](#)

[Sunday Herald: "Scottish government accused of intervening to block ban on toxic pesticide"](#)

[The Ferret: "Revealed: secret role of US drug company in fish farm pesticide row"](#)

[Sunday Herald: "Scottish government accused of colluding with drug giant over pesticides scandal"](#)

[The Ferret: "Ban on polluting pesticide dropped after complaint from fish farmers"](#)

[Sunday Herald: "Toxic pesticide ban scrapped after fish farm industry pressure"](#)

[The Ferret: "Government watchdog bowed to industry pressure on fish farm pollution"](#)

["Crackdown on fish farm pesticides after Sunday Herald investigation"](#)

[The Ferret: "Mapped: the 45 lochs polluted by fish farm pesticides"](#)

[Front Page of Sunday Herald: "Revealed: Scandal of 45 Lochs Trashed by Pollution"](#)

Now, for the first time, the full extent of the political scheming and skulduggery by the salmon farming lobby can be dissected (further FOI requests and an appeal to the Scottish Information Commissioner are in the pipeline).

The key players include SEPA's Chief Executive Terry A'Hearn who has been revealed to be a lapdog of the salmon farming lobby and Scottish Government; and Scott Landsburgh, Chief Executive of the Scottish Salmon Producers Organisation.



Other protagonists include [shadowy civil servants](#) at the Scottish Government working behind the scenes as shills for the salmon farming industry.



One of the civil servants involved was [David Miller](#) - special adviser to Scottish First Minister Nicola Sturgeon and former BBC Scotland's environment correspondent:



Another was [George Burgess](#), then the Head of Environmental Quality, who has [preached](#) how Scotland's environmental is "fundamentally important":



Other Scottish Government officials caught out by the FOI disclosures include Willie Cowan (then the Head of Performance, Aquaculture & Recreational Fisheries and now the Deputy Director of the Criminal Justice Division) and [Alastair Mitchell \(the Scottish Government's Acting Head of Performance, Aquaculture & Recreational Fisheries\)](#):



Chronology of an Environmental Lobotomy:

27 October 2015:

"Alarm bells going off all over the place" says SEPA's Corporate Communications Manager:

From: Storm, Debbie
Sent: 27 October 2015 13:12
To: MacNaught, Kevin; Wells, Mark
Subject: RE: Update on Aquaculture - SLICE issue
Sensitivity: Confidential

I think the three of us need to get our heads together on this one. Alarm bells going off all over the place!

From: MacNaught, Kevin
Sent: 27 October 2015 12:31
To: Storm, Debbie; Wells, Mark
Subject: Update on Aquaculture - SLICE issue
Sensitivity: Confidential

(F.R.I.)

Hi, I've had a chat with Hazel today about the SLICE issue and this is the current situation -

- Andy Rosie has changed his position on this yesterday.
- He no longer wants to rely on the outcomes of the Post-Authorisation Monitoring Project (PAMP) report as it is still in draft.
- They think the PAMP report won't be published for another couple of months.
- We're no longer looking at withdrawing SLICE completely.
- Use of SLICE was authorised by SEPA on the presumption that it would be used once or twice a year but we're seeing much greater use. Double-dosing is happening which wasn't what SEPA authorised.
- Current thought is that SLICE can be used for the current cycle – i.e. SLICE can be used on fish currently in the water.
- But a partial suspension would be issued on SLICE after this.
- This issue apparently hasn't gone to AMT yet. However Andy has apparently been in touch with Marine Scotland about it.

I sent over Qs for a Q&A so she is drafting some answers to these.

Cheers,

Kevin

Kevin Macnaught
Communications Officer
Scottish Environment Protection Agency | Strathallan House | Castle Business Park | Stirling FK9 4TZ

T.: 01786 452565
e.: kevin.macnaught@sepa.org.uk
w.: www.sepa.org.uk

7 March 2016:

From: Storm, Debbie
Sent: 07 March 2016 08:47
To: Sinclair, Douglas; Baird, Stuart
Cc: MacNaught, Kevin
Subject: PAMP Report

FR3

Morning!

Douglas I can never remember if it's Friday or Monday that you're not in so forgive me!

We're aware that the PAMP report is due to be published this week so just looking for an update as to any decision AMT might have made regarding the recommendations. We're keen to start getting lines together so if there's any update, can you drop use a line?

Cheers
Debs

Debbie Storm
Corporate Communications Manager
SEPA Corporate Office
Strathallan House
Castle Business Park
Stirling FK9 4TZ

T: 01786 452447
M:
W: www.sepa.org.uk

From: Sinclair, Douglas
Sent: 07 March 2016 12:03
To: Storm, Debbie; Baird, Stuart
Cc: MacNaught, Kevin
Subject: RE: PAMP Report

FR4

Hi Debbie

Don't work Mondays – but hey, here I am – what are you doing man!

Anyway.....

Things look like they are to be delayed....or perhaps put completely in longer term abeyance. The SARF Directors have been asked to "approve" publication of the report and have been given until the end of this week to give their views. The way that the e-mail seeking their approval has been couched I would not be surprised if a decision not to publish was the conclusion. This would not be helpful albeit it would reduce short term stress. As we know about it's findings, I think we would still have to take action about Slice but would not have the published paper to help support that action – all very messy!

The paper seeking AMT approval for our proposed course of action has been with AMT for a few weeks and they have now sought to have it on the AMT agenda on the 5th April so I guess that certainty over what we will do about Slice/PAMP will have to await that meeting.....

Other than that, nothing much has changed.

I'll be back in the office on Tuesday, in Dingwall tomorrow.

All the best

D

25 March 2016:

From: Sinclair, Douglas
Sent: 25 March 2016 16:21
To: Storm, Debbie; Baird, Stuart
Cc: MacNaught, Kevin; Rosie, Andy; Gritten, Barbara; Montague, Michael; Davies, Janet
Subject: RE: PAMP Report - update info

FK8

Hi folks

Just to provide you with an update on the state of play as concerns this report/study.

At the time of the last exchange of e-mails Directors were "voting" on whether the report should, or should not, be published. The conclusion was a conditional yes with most Directors thinking the report should be published but expressing various reservations. The SARF Chair then therefore suggested that they seek a suitably qualified person to look at the work and produce a "Moderation Report" – no, I don't know what that is either. It has become clearer however that this is essentially just another referring step, a cynic (who? Moi?), might say just an attempt to find reasons not to publish. The report is already I think the most heavily referred report in SARF's history, maybe even in the history of published science – 9 referees reports in two separate rounds.....though admittedly, 6 of those reports were not really from referees but consultants paid for by the drug company whose product (Slice) is implicated in the research work.

Upshot is that this Moderator has to produce a "final or progress report" by the SARF Board meeting which is on the 12th May, meaning that the final report on the PAMP study won't be published before that date.

By May of course the growing season will be well underway and there will be lots of long grass around....

All the best

D

Douglas Sinclair
Specialist I (Aquaculture)
SEPA Orkney Office
Norlantic House
KIRKWALL
Orkney
KW15 1GR

Tel: 01856 871080

5 May 2016:

SEPA drafts a press release banning Slice from 31 March 2018:

From: MacNaught, Kevin
Sent: 05 May 2016 15:11
To: Wells, Mark
Subject: SLICE
Attachments: SLICE QA for PAMP report.160205.DS.Draft.docx; Fish farm medicine - SEPA - DRAFT - 09.02.16.doc

Sensitivity: Confidential

(FR14)

Hi, these are the latest versions of the SLICE press release and Q&A.

Cheers

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NEWS

from the
SCOTTISH ENVIRONMENT PROTECTION AGENCY

Xx 2016

SEPA to withdraw use of SLICE sea lice treatment

The Scottish Environment Protection Agency (SEPA) has decided, based on the latest evidence, that fish farm operators will not be authorised to use the sea lice medicine SLICE as of 31 March 2018.

This decision follows research commissioned by Scottish Aquaculture Research Forum (SARF), and undertaken by the Scottish Association for Marine Science (SAMS), to assess the impact of SLICE (amamectin benzoate) on the marine environment.

The SARF report shows subtle but detectable, and unexpected, impacts on the environment arising from the use of the medicine.

Douglas Sinclair, SEPA's fish farm specialist, said:

"SLICE is designed to kill sea lice and, in order to minimise the risk to other marine life and the environment, SEPA permitted its use only in accordance with licenses issued under the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

"These licenses include conditions restricting the use of SLICE with the aim of limiting the risks to the environment and other marine life.

"Given concerns about changes in the way the medicine was being used SEPA proposed that SARF commission this study to better understand the possible effects of SLICE upon the environment. SEPA is an evidence-based organisation and as a regulator it is important that we continually monitor the environment and take effective action based on this.

"While previous studies have shown that SLICE has not had a significant impact on the marine environment and the impacts reported in this research are subtle, we have decided, based on the conclusions of SARF's report, that fish farms will not be permitted to use this medicine from 31 March 2018."

Fish farms will be able to continue to use SLICE subject to tight restrictions until the current (two-year) salmon growth cycle concludes. SEPA is in contact with the Veterinary Medicines Directorate (VMD) to provide recommendations to vets treating fish using SLICE to minimise the potential for harm arising from its use, pending the removal of SLICE from the marketplace.

Commented [SD1]: This will depend on how happy our friends down in Surrey are to co-operate...this will become clear soon.

Ends

Media enquiries:

- Telephone: 01786 45 25 65
- Out of hours emergency media contact: 01698 839028

Distribution:

SLICE – Q&A

PROTECT – these have been prepared by SEPA. The questions were posed for our research purposes and also to assist with drafting responses to any media enquiries and should not be disseminated/used by any other organisation.

- What impact is SLICE having on the environment and on species?
SEPA expects that where fish farms are operated and substances such as Slice are used that the environment will be affected. The licensing system we have for farms is however designed to limit these effects to the area around and close to the fish farm cages. This study of the data on communities of animals living in the seabed shows a subtle but detectable and unexpected impact on communities of crustaceans in the seabed in waterbodies where there is a history of Slice use. The effect extends beyond the immediate vicinity of the fish farm. This means at sites where there is a history of Slice use there are fewer different species and fewer actual individual crustaceans compared to sites where it hasn't been used.
- What species have been impacted by these findings? And by what number have their abundance reduced?
The measured effect is limited to crustaceans mainly small species of animals such as tiny shrimps which live in the seabed sand and mud. The changes in abundance are highly variable depending on where the samples are taken in relation to fish farms and on how often the treatment has been used. On average, sites where Slice treatments have been regularly used over several years will have 81% fewer crustaceans present than sites where the treatment has not been used.
- When (and how) did SEPA become aware of this?
The Post-Authorisation Monitoring Project containing the evidence was published on XX Feb 2016. This was the outcome of a 2 year project which was given by the Scottish Aquaculture Research Forum (SARF) to the Scottish Association for Marine Science (SAMS) to undertake. The project was proposed by SEPA as the Agency is a Director of SARF. SEPA suggested to SARF that the project was worthwhile because:
 - a) It was some time since research of this type had been done;*
 - b) The pattern of use of the product had changed since it was introduced;*
 - c) There was some discussion, for example with shellfishermen suggesting that unexpected effects were being observed.*
- Why didn't SEPA spot this as the Scottish Association for Marine Science did the Post-Authorisation Monitoring Project study using SEPA's data?
Our assessment of the condition of the seabed doesn't concentrate just on crustaceans but on the chemistry of the seabed and the overall health of the different groups of animals present there. It's a general view of the overall health of the seabed close to fish farms. Normally then, our routine monitoring would not necessarily spot a reduction in the numbers of crustaceans at any individual site and even if this were detected on a site-by-site basis it would not in itself necessarily be indicative of a problem. SEPA collects data on the condition of the seabed around fish farms and holds a great deal of this data. It is the scale of the data held by SEPA that means it is hard to analyse but also gives the information great value. But given the scale of work need to draw meaningful conclusions it's not something that we routinely do and why a 2 year project was required to find this link.

- How long does SEPA expect that these impacts have been happening (before SEPA realised)?
It is difficult to be certain. When Slice was first introduced in 1999-2000, a 5 year project to assess any impacts was established - the original Post Authorisation Assessment Project [link], its final report was published in 2005. This was a substantial piece of research funded by SEPA and a range of other partners which concluded that there was no discernible impact on the environment from the use of Slice and another sea louse medicine. It seems unlikely that this effect was present at that time as the study would have detected it. Since then, the patterns of use of Slice have changed which may have resulted in the observed effect arising. It's not therefore possible to be certain when such impacts first arose but probably sometime within the last 10 years.
- If fish farmers have been using SLICE at levels permitted by SEPA then how can this have happened?
The amount of Slice that can be used for a treatment at any fish farm is limited by a series of equations. The aim of these equations is to restrict the amount of the medicine that can be used depending on how much might be around in the environment from previous treatments to avoid a build-up of residues and ensure any Slice remaining is at safe levels and that the residues do not last too long. While there is no suggestion that in most cases the safe levels of residues have been exceeded it is possible that changing use has seen an increase in the length of time that residues are present in the seabed. The extended duration of residues being present may have caused the unexpected effect that has been seen.
- What levels of SLICE would be regarded as safe/ normal in the environment? And what levels of SLICE have actually been found in the environment?
SEPA sets a limit of 0.763 microgrammes of Slice per kilogram of wet sediment (0.763µg/kg) as a safe environmental standard which should ensure the protection of the environment beyond the vicinity of the fish farm. Data is collected on residue levels in the seabed around fish farms but these samples do not necessarily coincide with the samples used to work out how many crustaceans are present in the seabed. In any typical year, a small number of farms are shown to have residues present at levels above this safe environmental standard. At this point it is clear that the safe environmental standard has not been breached in a widespread way across waterbodies but that the subtle effects on crustaceans is being seen at concentrations below the safe environmental standard.
- What action is SEPA taking to rectify this situation?
SEPA takes this matter very seriously. We are an evidence based regulator and where there is robust evidence that some part of our regulatory regime is not providing environmental protection we will take steps to reduce or remove the potential for impacts. In this case having developed concerns about the use of Slice, SEPA sought that research be undertaken to assess whether there were subtle impacts. This report is the outcome of that research and SEPA intends to take the following steps to rectify the situation:
 - a) Restrict the use of the medicine to limit the potential for repetitive use and overuse of the product on fish that are currently stocked.*
 - b) Cease the use and discharge of the product at the end of the current growth cycle, in Spring 2018.*
- Is there a definitive date when fish farms will no longer be able to legally use SLICE?
31 March 2018

- Could fish farms not just import SLICE and use it anyway?
The importation of medicines is not something that SEPA regulates but were Slice to be used and released from a fish farm when it is no longer authorised by SEPA such use would be illegal.
- What action will SEPA take against fish farms which continue to use SLICE?
The use and discharge of substances that are not authorised by conditions in CAR licences is illegal. Deliberate unauthorised releases of substances posing a significant environmental threat would normally be a matter dealt with under SEPA's Enforcement Policy.
- Are there viable and accessible alternatives which the fish farm industry can use instead of SLICE?
There are other products available for the treatment of sea lice. What are they?
- Only a few months ago the fish farm industry was instructed not to use teflubenzuron. Now you are instructing fish farms not to use SLICE when you had previously stated it was safe to use. Do these findings undermine SEPA's reputation as an effective regulator of fish farms?
Effective environmental regulation is about using scientific evidence to assess the impacts of development and activities on the environment and using the regulatory framework to allow development and use of the environment where possible but ensure that the impacts of such are within acceptable boundaries. The licensing of fish farms, including licensing the release of sea louse medicines is based around series of complex scientific assessments. At the time that these assessments were developed on the best available science and subject to independent review, they suggested that adequate environmental protection would be provided. Subsequent assessment of the impacts of the use of Calicide and Slice upon the environment has indicated higher than anticipated levels of residues (in the former case) and subtle unexpected impacts in the case of Slice.
- How many fish farms have used SLICE (e.g. in the last 2 years)? Where are these fish farms located?
The product was used in 87 sites in 2014 and c70 sites in 2015 – although the numbers for 2015 are not yet complete. [We'll need to check these] The farms are located in a wide variety of locations on the West coast, the Western Isles and Shetland.
- I'm confused because the Compliance Assessment Scheme results for 2014 have just been published and it appears that many fish farms have performed very well. Given the findings regarding SLICE – why is this?
The assessments undertaken in CAS are a site specific view of the performance of individual sites. This study is a widespread statistical assessment of the subtle effects of Slice on the environment rather than a measure of the way each site performs. The Compliance Assessment Scheme would not normally pick up the subtle effects reported in the PAMP study.
- Is SEPA certain that any fish farm medicines are safe to use? Why should we believe that SEPA won't backtrack on its view on other fish farm medicines in the future?
SEPA will continue to review its position on all elements of fish farm regulation and if required will improve the means by which the regulation of fish farms is undertaken. We have no reason to believe that our position on other fish farm medicines will change in the near future.
 - Should there be a moratorium on the use of all fish farm medicines until you can be confident that they are not having unexpected impacts?
No, but if evidence demonstrates that a particular product is not safe then SEPA will take action to reduce or cease emissions of that product from fish farms.
 - We got tipped off on these developments by the industry. Why has SEPA not proactively kept the public informed of these developments? Is SEPA in cahoots with SLICE manufacturers/ marketers?
No, SEPA is not in cahoots with manufacturers of medicines or those who market such products.

Stuart's point to be added in - do you think we can take the opportunity to state that we expect the industry to show their ability to innovate in the period until the withdrawal becomes effective?

17 May 2016:

From: Sinclair, Douglas
Sent: Tuesday, May 17, 2016 02:23 PM GMT Standard Time
To: MacNaught, Kevin; Baird, Stuart
Cc: Wells, Mark
Subject: RE: Aquaculture

FR22

Hi folks

I have added further edits on top of Stuart's. You'll see I have changed the emphasis somewhat from *we are withdrawing permission to use Slice but allowing some use meantime*, to *we are restricting use for the next two years to reduce risk and allow clearer science to be undertaken into cause and effect, and unless a compelling case is made it will be withdrawn*.

This is because I understand that MSD who own Slice intend to pay for further research in an attempt to demonstrate that the product is in fact safe. We are also continuing our own monitoring work during this summer. Were MSD able to show that the risk is actually much lower than the PAMP study suggests and we have not found issues to concern us in our own monitoring then we might reconsider our position during the 2y interregnum. I think however this is highly unlikely.

Happy to discuss as required.....

D

Douglas Sinclair
Specialist I (Aquaculture)
SEPA Orkney Office
Norlantic House
KIRKWALL
Orkney
KW15 1GR

18 May 2016:

From: Wells, Mark
Sent: 18 May 2016 13:59
To: MacNaught, Kevin; Sinclair, Douglas; Baird, Stuart
Subject: RE: Aquaculture
Sensitivity: Confidential

FR24

Thanks all for the clarifications. I only have one query - the paper to AMT asked for, and got, a decision to phase out Slice, while in the article we say we will unless we see compelling evidence to the contrary. I don't think that position was put to AMT? If we say in the article we might not phase it out, but have a previous decision that we will, it could cause difficulties if the AMT paper and minute was FOI. Could we please clarify that one, and we may need to revisit the AMT decision.

Two things remain - do we know when the report will be published, and do we know whether anyone else is willing to join us in telling this story?

Cheers

Mark

From: Sinclair, Douglas
Sent: 18 May 2016 16:47
To: Wells, Mark; MacNaught, Kevin; Baird, Stuart
Subject: RE: Aquaculture
Sensitivity: Confidential

Mr 25

Hi folks

I have made a few small further tweaks to address Kevin's points below:

In para 6 - I wonder if we can clarify what we mean by 'confirmed a more extensive spread within the marine environment.' It's just that in the previous para we say 'there is little evidence of widespread breaches of the standard...'

There's a difference in meaning here, the Shuna Sound work found that residues were distributed more widely than anticipated but these residues were present at concentrations below the safe environmental standard. So, in essence it was found in more places than we might have expected in Shuna Sound albeit at relatively low concentrations.

Para 7 - we're wanting to go ahead with this ASAP so thinking this para would need to be cut if the SARF research isn't to be published any time soon?

I think we are wanting to do this as soon as we can but I think it might be best to be timed to coincide with the publication of the SARF work - also, Alison York has been having a look at the legal aspects of the withdrawal of the product and Stuart and I are seeking to bottom out some issues with her. It might be best if we awaited that conversation although Stuart might take a different view?

Para 12 - would SAMS be annoyed if we release details of NewDEPOMOD before they've announced it as think they're planning a press release about it? Also think there are some issues with New DEPOMOD which need ironed out? Maybe they'd like us to mention it in this article though?

SAMS are champing at the bit to get a press release out on the new model, we are still confirming its effectiveness and are perhaps coming to the view that we won't look for it to be used in anger until later in the year. That might be no reason for us not to mention it in the story but we'd need to make sure that SAMS and Marine Scotland (who paid for the development work) are happy for us to do so. It might be that they will want to issue their own press release(s) on that issue and we'd just want the chance to make sure that their press release is clear about when we will accept applications using it

Mark, I take your point regarding withdrawal vs the possibility of further evidence changing that decision. There are reasons for my change to the text to alter the emphasis. I think we would always be open to new or refined evidence or research influencing decisions and in the two year phase out period we couldn't close the door to that possibility, especially when the SAMS PAMP research report and our own data analysis is not claiming an absolute cause and effect relationship. I think the chance of research being undertaken which undermines the decision to phase out Slice use is fairly remote but it is always possible. The AMT paper does also leave that particular door ajar in para 6.6 of the AMT paper (see excerpt below) we say: ".....Only if SEPA receives sufficient evidence that the treatment regime could be amended in a way that offered efficacious treatments to farmed salmon and protected the environment from subtle but damaging impacts would ASMG advise the re-introduction of Slice to CAR licences."

- 6.6 SEPA officers therefore met representatives of the manufacturers, – MSD Animal Health, to discuss recent findings, explain SEPA's concerns. MSD representatives noted SEPA's concerns, but reserved their position, expressing a keenness to maintain a dialogue with SEPA while they consider their options and discuss the issue with the industry and the VMD. Only if SEPA receives sufficient evidence that the treatment regime could be amended in a way that offered efficacious treatments to farmed salmon and protected the environment from subtle but damaging impacts, would ASMG advise the re-introduction of Slice to CAR licences.

As I say, I think the chances are pretty remote but I understand that the manufacturers are proposing to commission further research and it would be hard for us to refuse to consider new results if we were content that the work was properly founded and effectively executed.

I didn't speak to Scott Landsburgh on this issue on Friday the 6th. I think we should do so but much closer to the point where we will publish. My fear of engaging too far ahead of time is that they may say that they do not wish to be part of our story but use the early sight of our text to launch a press story of their own losing us the initiative we crave. SARF did not specify a date for publication of the PAMP report it awaits a revision to the report to add a preface. I think that will happen shortly and I should be given sight of this final report a day or two before it goes live on the SARF website. I think at that point we could easily approach SSPO – John Webster, the SSPO Technical Director is also a SARF Director and will see the SARF/PAMP report on the same day as me and ask for their comments.

If we are going ahead before the SARF/PAMP report is published then I think as Kevin points out that we need to remove references to it in our story.

Whenever we publish, Stuart and I will need to have letters to go to the sector and MSD – who own Slice, at the same time that we publish the story, telling them directly of our chosen course of action.

Does this help?

D

19 May 2016:

From: MacNaught, Kevin
Sent: 19 May 2016 18:16
To: Sinclair, Douglas; Wells, Mark; Baird, Stuart
Subject: RE: Aquaculture
Sensitivity: Confidential



Thanks Douglas, aware that other organisations will have interest in this and it may impact on them.

I think the next step with this is to firm up:

- Who we are going to share this with in advance
- Who from SEPA will share it with them
- And when we're going to share it with them.

This might highlight sections which need to be altered (e.g. NewDEPOMOD).

And then hopefully we'd be in a position to upload this to SEPAView as soon as the PAMP report goes live.

Cheers,

Kevin

27 May 2016:

From: MacNaught, Kevin
Sent: 27 May 2016 11:21
To: Sinclair, Douglas; Baird, Stuart
Cc: Wells, Mark
Subject: RE: Aquaculture
Attachments: SLICE story - latest DRAFT.docx

FR257

Sensitivity: Confidential

Hi, I've pulled together a table of partner organisations I think we'd need to inform about the SLICE SEPAView article in advance (but let me know if I've missed anyone out) – so that we'd be in a position to upload the article as soon as the PAMP report is live.

Good to firm up who would be sharing with them and when (even roughly) if you can add in below?

Partner	Who from SEPA sharing article with partner	When sharing
Scottish Association for Marine Science		
Scottish Aquaculture Research Forum		
Marine Scotland		
Scottish Government - Greener Desk	Kevin	
Scottish Government - Sponsor	Mark	
Scottish Aquaculture Innovation Centre		

5 August 2016:

Following a teleconference with the SSPO, Merck and the Scottish Association of Marine Science, SEPA invite a contribution to an article to be published in SEPA View on 10 August:

From: Baird, Stuart [<mailto:stuart.baird@sepa.org.uk>]

Sent: 05 August 2016 17:29

To: Scott Landsburgh <SLandsburgh@scottishsalmon.co.uk>; John Webster <JWebster@scottishsalmon.co.uk>

Subject: Confidential - SEPA sea lice article for contributions

Dear Scott and John,

as discussed during the teleconference, please find a draft article attached, for your information, which aims to present a balanced view of some of the issues surrounding the control of sea-lice in light of the imminent publication of the SARF PAMP-2 report. We plan to publish the article on SEPA's online magazine 'SEPAView', shortly before the SARF report is published, on Wednesday 10 August.

We would very much like the article to be inclusive and would therefore like to offer SSPO the opportunity to provide a contribution to the article. If you would like to make a contribution to the article then can you please send this to me by the end of the day on Monday 8th August.

Once we have received all contributions we will re-circulate the article for a quick accuracy check before publishing.

Regards

Stuart

8 August 2016 - 3.26pm:

The salmon farming lobby (SSPO) threatens SEPA's Stuart Baird that the proposed publication "could undermine commercial confidence in the industry" and "will probably damage all of our reputations":

From: Scott Landsburgh [mailto:SLandsburgh@scottishsalmon.co.uk]
Sent: 08 August 2016 15:26
To: Baird, Stuart
Cc: John Webster; Julie Edgar
Subject: RE: Confidential - SEPA sea lice article for contributions

Dear Stuart,

Thank you for the proposed SEPA article to be posted on your website. It is a fairly sizeable document and would not be the style (or content) to which SSPO would use when advising the public and the media. It is therefore not possible for us to make a contribution to your article as it would be critical of the stance you have taken on the future of SLICE.

However, I do recognize that you are a regulator and have a different perspective on public comment than we do.

There is some misrepresentation within your paper and pieces of information have been collated to justify a position with which we don't agree. In particular, your statement concerning the fate of SLICE is pre-emptive, controversial and could undermine commercial confidence in the industry.

Should you publish this statement in its current format, I suspect that it will lead to a good deal of media scrutiny which will seek to undermine the industry's reputation and will probably damage all of our reputations. I had hoped on Friday to agree a consensual position based upon mutual respect for all parties and to hold a media line based on openness (without divulging unestablished concerns) and reassurance, along with a professional determination to gain more understanding of the data to enable future decision making.

I still hope that we can issue a common statement to the media that we can all support. I will get something out tomorrow for approval.

Kind regards

Scott

**Scott Landsburgh, Chief Executive,
Scottish Salmon Producers' Organisation
Durn – Isla Road – Perth PH2 7HG
01738 587000
dslandsburgh@scottishsalmon.co.uk
www.scottishsalmon.co.uk**

8 August 2016 - 3.42pm:

SSPO Chief Executive Scott Landsburgh urges SEPA's Chief Executive Terry A'Hearn to "minimize the controversy" and to "deal with such a sensitive subject delicately and proportionately":

From: [Scott Landsburgh](#)
To: [Ahearn, Terry](#)
Cc: [John Webster](#)
Subject: FW: Confidential - SEPA sea lice article for contributions
Date: 08 August 2016 15:42:27
Attachments: [image001.png](#)

Hi Terry,

I hope you are well. I am forwarding a copy of recent correspondence I have had with Stuart Baird whilst Andy Rosie is on holiday.

The SARF PAMP-2 Report is due to be published on Wednesday and we have been trying to agree a common media position with all parties in order to minimize the controversy as and when it is noticed by the media. I believe that it is in all our interests to deal with such a sensitive subject delicately and proportionately.

I am therefore disappointed that SEPA is proposing to publish a statement of intent with regard to the future use of SLICE in Scotland and to seek to justify that with pieces of information collated to justify a position. The industry has been very concerned with regard to the future use of SLICE and we have been involved in numerous discussions with your colleagues to seek to find a way forward to the mutual benefit of all. At a stroke, a published position like this will become the centre of media attention and will make it difficult for some accommodation in the future.

I would ask you, at this point, to ask your colleagues to reconsider the specific point regarding SLICE in the paper and to engage with us to find a solution for the future use of SLICE which will be acceptable to all.

Regards

Scott

**Scott Landsburgh, Chief Executive,
Scottish Salmon Producers' Organisation
Durn – Isla Road – Perth PH2 7HG
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dslandsburgh@scottishsalmon.co.uk
www.scottishsalmon.co.uk**

8 August 2016 - 5.51pm:

SEPA's Stuart Baird briefs [SEPA's Chief Executive Officer Terry A'Hearn](#) and [SEPA's Executive Director Calum MacDonald](#):

From: [Baird, Stuart](#)
To: [Ahearn, Terry](#); [MacDonald, Calum](#)
Subject: FW: Confidential - SEPA sea lice article for contributions
Date: 08 August 2016 17:51:51
Attachments: [image001.png](#)

Terry, Calum,

SSPO response to the article that I sent to them on Friday afternoon following a teleconference with SSPO, Merck, SARF and SAMS.

I've also received responses from SAIC and SAMS.

The common media statement that SSPO were looking to run with was one which would not be released until interest was generated in the report and would then be very limited in scope, they haven't shared this with us.

Stuart

9 August 2016 - 9.06am:

From: Wells, Mark
Sent: 09 August 2016 09:06
To: Ahearn, Terry
Cc: Green, Jo
Subject: SLICE story

Terry

I understand Calum is speaking with SSPO regarding comms around the SLICE report.

Notwithstanding the outcome of that meeting, I am copying you below the current draft of the story as developed by us – if we do go ahead tomorrow there isn't much time for review and sign-off, so I wanted you to have the latest version, which I have tweaked slightly in light of yesterday's launch:

Evidence and innovation hold the key to sustainable fish-farming

Aquaculture is an important and ambitious industry in Scotland, helping underpin a successful and sustainable rural economy particularly in the Highlands and Islands. Ensuring that this vital sector operates within the capacity of our world-class coastal environment to support it is essential and a key role for SEPA. One issue in particular, the control of sea lice, continues to prove particularly challenging. But it also presents an opportunity to position Scotland at the forefront of innovation and development which create lasting prosperity and viability for the industry.

Scotland's fish-farming sector is important to a vibrant and sustainable rural economy. Ensuring it can continue to thrive, while protecting our world class coastal environment, is a vital consideration both for the industry and for SEPA as Scotland's principal environmental regulator. New evidence regarding the potential environmental impacts of treatments for sea lice has prompted SEPA and the industry to take swift action, and tap into the sector's capacity for innovation, research and development, to secure a viable and prosperous future for Scotland's aquaculture.

Sea lice are small marine parasites which occur naturally on many species of fish, but can be a problem when large numbers of fish are concentrated in fish-farms. There are a number of methods of controlling sea lice, including the use of authorised medicines either as a bath, or an in-feed treatment such as Emamectin Benzoate.

The use of these treatments, and the resulting release to the marine environment, is regulated by SEPA, and is carefully controlled by conditions included in our fish farm licences informed by detailed modelling of the possible impacts from their use. Those conditions are set using the best available evidence, and based on the anticipated frequency and dose of treatment, with the aim of ensuring that the residues in the environment are within independently derived safe environmental standards and environmental impacts are within acceptable levels.

SEPA and the fish-farming sector carry out general monitoring of the overall health of the seabed close to individual fish farms. This monitoring shows that at a small number of fish farms residues from the use of Emamectin Benzoate are found to be present at levels around or slightly above the safe environmental standard, although at this point there is little evidence of widespread breaches of the safe environmental standard across sea lochs or voes.

While previous seabed monitoring has generally not shown significant impacts on marine animals in the wider marine environment, we have become aware of anecdotal claims that sea louse treatments might be having an unexpected adverse environmental impact at this scale, resulting in less biodiversity and reductions in some crustacean populations. In response, we have undertaken a more detailed and extensive study into the health of the seabed in the Shuna Sound area, in which there are a number of fish farms which have used in-feed sea louse treatments. This study has confirmed a more extensive spread within the marine environment of low levels of the residues arising from the use of the sea louse treatment

Slice, whose active ingredient is Emamectin Benzoate, than had been expected when the medicine was first authorised, or had been predicted by detailed modelling.

Since our regulatory process is based on the best available scientific evidence, we invited the Scottish Aquaculture Research Forum (SARF) to commission research to further analyse our data to determine whether there is compelling evidence of the environmental impacts suggested by the anecdotal claims. This analysis identified a subtle but detectable, and unexpected, association between impact on the marine environment and the use of Slice. The data are highly complex and the conclusions are not absolute, but an association is clearly indicated.

We are also aware, and are concerned, that in many cases the frequency and dose of Slice treatments have regularly exceeded what was expected when the current licence framework was developed. In most cases there is no suggestion that the treatments are breaching the licences set by SEPA, but it is possible that the fate and behaviour of the medicine once it has been fed to fish differ from those which were assessed when setting the safe environmental standard. The new treatment patterns may reflect the fact that the treatment is becoming less effective, probably as sea lice become more resistant to the medicine.

Where robust evidence suggests that some part of our regulatory regime is not providing the expected and required level of environmental protection, we must take action to reduce or remove the potential for those impacts. In this case, and following careful consideration, we are intending to change the way in which Slice use is permitted by conditions in fish farm licences. This will allow continued use of the medicine, but subject to tighter restrictions on use. These arrangements are likely to remain in place for a period of two years, allowing the aquaculture sector, or the company which markets Slice, to carry out further research to confirm or confound the apparent link between Slice use and unexpected distribution of residues and possible environmental effects. SEPA will also be undertaking further analysis and monitoring work during this period. If, during the next two years, no compelling case is made to support the continued use of the product, it is likely that the ability to use Slice will be phased out completely.

We have informed fish farm operators of SEPA's position that, unless we see new and compelling evidence to support continued use, the ability to use Slice is likely to be phased out in 2018. We are also working in partnership with the industry, the Scottish Government, the Scottish Aquaculture Innovation Centre and other key partners, to explore the potential for the development of alternative means of controlling sea lice, which minimise the risk to our marine environment. The challenge of controlling sea lice in fish farms is not unique to Scotland, and the research and development of these alternative means represents a significant opportunity for Scotland to establish itself as a leader in the field, and could benefit both the aquaculture sector and Scotland's wider economy in the long run.

A new computer model, created by researchers at the Scottish Association for Marine Science (SAMS), with support from the Scottish Government and SEPA, will become a key tool in the future regulation of fish farms. This model, called NewDEPOMOD, will be available for use in applying for fish farm licences later this year and will enable a better understanding of how discharges from fish farms affect the seabed. NewDEPOMOD will replace the current AutoDEPOMOD model, which has been in use since 1999. SEPA also recently launched a new survey vessel, the Iona, designed specifically to enhance our capability to monitor the environmental impacts of marine fish farms.

We believe that the only businesses which will thrive in the 21st century will be those which have developed ways to prosper within our planet's capacity to support them. These businesses will see improving their environmental performance as an opportunity, not a problem. Our role as a 21st century regulator is to help them to take these opportunities, creating lasting prosperity and viability from the resources of one planet. This will require us to develop our capacity and capability to work with businesses in ways which encourage and support innovative thinking for the 21st century, working collaboratively with business sectors, individual businesses and other organisations to drive and support innovation, problem-solving and, ultimately, prosperity within the capacity of our planet to support it. Our approach to working with Scotland's aquaculture industry, to help turn this environmental challenge into an opportunity to ensure a thriving and sustainable fish-farming sector, is just one example of us putting this approach into practice.

Ends

MARK

9 August 2016 - 3.06pm:

From: [Scott Landsburgh](#)
To: [Ahearn, Terry](#)
Subject: FW: Amended media position
Date: 09 August 2016 15:06:42
Attachments: [image001.png](#)

Terry,

Please see below an agreed (between SSPO, MSD, SAMS) media position to coincide with the publication tomorrow. It would be very helpful if SEPA were also to agree this line.

Kind regards

Scott

**Scott Landsburgh, Chief Executive,
Scottish Salmon Producers' Organisation**
Durn – Isla Road – Perth PH2 7HG
01738 587000
dslandsburgh@scottishsalmon.co.uk
www.scottishsalmon.co.uk

From: Scott Landsburgh
Sent: 09 August 2016 15:00
To: 'chris.beattie@merck.com' <chris.beattie@merck.com>; kenny.black@sams.ac.uk; 'Baird, Stuart' <stuart.baird@sepa.org.uk>
Cc: John Webster <JWebster@scottishsalmon.co.uk>; Julie Edgar <JEdgar@scottishsalmon.co.uk>; RichardSlaski@aol.com
Subject: Amended media position

Dear All,

Further to Kenny's earlier email, please find below the new media position.

I hope that you can confirm that you support this and we will accredit accordingly on our website tomorrow.

“The salmon farming industry, SEPA and research institutions are agreed that sound scientific evidence is the best basis on which to run and develop the industry. A recent study commissioned by SARF and undertaken by SAMS to explore any potential environmental impacts of a sea lice treatment and deficiencies in the data required the use of complex statistical models. The SARF Board and other parties agreed that further research is required to reach a firm

conclusion. This new research proposal will follow soon.

“Meanwhile, the industry continues to invest in new ways to manage sea lice such as cleaner fish and thermolicers

Regards

Scott

Scott Landsburgh, Chief Executive,
Scottish Salmon Producers' Organisation
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9 August 2016 - 5.13pm:

David Johnson (Private Secretary to the [Cabinet Secretary for the Environment, Climate Change & Land Reform \(Roseanna Cunningham\)](#)) states that "we have flagged this up with Ms Cunningham, who would be content to speak to Terry A'Hearn tomorrow morning". "Is there any time pressure for this release?" he asks. "Does it have to go tomorrow?":

From: Cabinet Secretary for the Environment, Climate Change and Land Reform
Sent: Tuesday, August 09, 2016 05:13 PM
To: Smith K (Kate); Cabinet Secretary for the Environment, Climate Change and Land Reform
Cc: Mitchell A (Alastair); Higgins K (Kate); Miller D (David); Director of Marine Scotland Mailbox; Cowan WJ (Willie); Ritchie N (Neil); Haddon P (Paul); Barber J (Jill)
Subject: URGENT: Scott Landsburgh SSPO

Kate,

We have flagged this up with Ms Cunningham, who would be content to speak to Terry A'Hearn tomorrow morning (although we are struggling to get in contact with his office to confirm a time).

Ms Cunningham has some questions about the press statement:

- The draft release is silent about what the industry is expected to do as an alternative – would have expected to see something about how industry will be supported in consequence of this change – is there anything that can be added in that regard?
- Ms Cunningham also recalls being told recently that Norway is also phasing this out – is this correct? If so, do they have alternatives in place and any evidence about their efficacy?
- Is there any time pressure for this release? Does it have to go tomorrow?

Thanks,

David

David Johnston | PS to Cabinet Secretary for Environment, Land Reform and Climate Change |
2N.08 | St Andrews House | Edinburgh | EH3 1DG | T: 0131 244 1556

cabsecECCLR@gov.scot

9 August 2016 - 5.25pm:

[Alastair Mitchell \(the Scottish Government's Acting Head of Performance, Aquaculture & Recreational Fisheries\)](#) writes to the [Cabinet Secretary for the Environment, Climate Change & Land Reform \(Roseanna Cunningham\)](#) that following a conversation with

David Miller (Special Adviser to the First Minister of Scotland) "we believe, with Terry's help, that we can manage the issue now with some changes to the SEPA response". "He [Terry A'Hearn - SEPA's Chief Executive Officer] is reviewing the SEPA lines and handling tomorrow morning and will keep us in touch with his thinking":

From: Mitchell A (Alastair)
Sent: 09 August 2016 17:25
To: Higgins K (Kate); Cabinet Secretary for the Environment, Climate Change and Land Reform; Smith K (Kate)
Cc: Miller D (David); Director of Marine Scotland Mailbox; Cowan WJ (Willie); Ritchie N (Neil); Haddon P (Paul); Barber J (Jill)
Subject: Re: URGENT: Scott Landsburgh SSPO

David/Kate - I've spoken to David M since and advised that we can stand him and the Cabinet Secretary down for now following further discussions with Terry A'Hearn. We believe, with Terry's help, that we can manage the issue now with some changes to the SEPA response. He is reviewing the SEPA lines and handling tomorrow morning and will keep us in touch with his thinking.

Happy to discuss.

Regards, Alastair
Sent from my BlackBerry 10 smartphone.

9 August 2016 - 5.30pm:

From: MacNaught, Kevin
Sent: 09 August 2016 17:30
To: Baird, Stuart; Sinclair, Douglas
Cc: Wells, Mark
Subject: SLICE
Sensitivity: Confidential

FR 30

Hi Stuart/ Douglas, some suggested key points in case it is decided that a short press release is the course of action.

Also some further questions for Q&A given latest developments below.

Regards,
Kevin

SUGGESTED KEY POINTS FOR POSSIBLE PRESS RELEASE –

- **SEPA and the fish-farming sector carry out general monitoring of the overall health of the seabed close to individual fish farms. This monitoring has shown that at a small number of fish farms residues from the use of Slice are present at levels around or slightly above the safe environmental standard.**
- **SEPA invited the Scottish Aquaculture Research Forum (SARF) to commission research to further analyse our data. This analysis identified a subtle but detectable, and unexpected, association between impact on the marine environment and the use of Slice.**
- **Where robust evidence suggests that some part of our regulatory regime is not providing the expected and required level of environmental protection, we must take action to reduce or remove the potential for those impacts.**
- **In this case, we are intending to change the way in which Slice use is permitted in fish farm licences. We have informed fish farm operators of SEPA's position that, unless we see new and compelling evidence to support continued use, the ability to use Slice is likely to be phased out in 2018.**

FURTHER QUESTIONS FOR Q&A

3

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- **SEPA is taking action based on the SARF report. Yet the preamble to the report undermines the content of the report and suggests that further research is required. Why is SEPA taking further action on a report which appears to be highly disputed?**
 - **Are there viable and accessible alternatives which the fish farm industry can use instead of SLICE? (this is on the original Q&A but think we need a fuller answer).**
 - **Is SEPA using the report as an excuse to undermine the fish farm industry?**
 - **Why is there such a difference in how SEPA appears to be reading the report compared to how fish-farm bodies appear to be reading the report?**

Kevin Macnaught
Communications Officer
Scottish Environment Protection Agency | Strathallan House | Castle Business Park | Stirling FK9 4TZ

T.: 01786 452585
e.: kevin.macnaught@sepa.org.uk
w.: www.sepa.org.uk

9 August 2016 - 10.32pm:

According to the Scottish Government's [David Miller \(Special Adviser to the First Minister of Scotland\)](#), the [Cabinet Secretary for the Environment, Climate Change & Land Reform \(Roseanna Cunningham\)](#) "is keen to be fully briefed on this at the earliest opportunity". The former BBC Scotland Environment correspondent also says he is "grateful to Alastair for his intervention" [[Alastair Mitchell is the Scottish Government's Acting Head of Performance, Aquaculture & Recreational Fisheries](#)].

From: Miller D (David)
Sent: 09 August 2016 22:32
To: Mitchell A (Alastair); Higgins K (Kate); Cabinet Secretary for the Environment, Climate Change and Land Reform; Smith K (Kate)
Cc: Director of Marine Scotland Mailbox; Cowan WJ (Willie); Ritchie N (Neil); Haddon P (Paul); Barber J (Jill)
Subject: RE: URGENT: Scott Landsburgh SSPO

All

Ms Cunningham is keen to be fully briefed on this at the earliest opportunity. I'm grateful to Alastair for his intervention, but we still need to supply the information requested by Private Office.

Could officials provide an update by mid-morning please?

Best

DM

10 August 2016 - 8.58am:

From: Sinclair, Douglas
Sent: 10 August 2016 08:58
To: MacNaught, Kevin; Baird, Stuart
Cc: Wells, Mark
Subject: RE: SLICE
Sensitivity: Confidential

RR 40

Hi folks

Some tweaks and "A"s below.

As we discussed, there's probably nothing wrong with such an abbreviated response but it will simply spawn (sorry) more questions which might have been adequately answered by our longer SEPA View narrative. I'd be in favour of getting out whatever we are releasing as soon as the SARF report appears, or before under embargo if that were possible, mainly because I'm not in the office tomorrow, nor on Friday although I can do a couple of hours on Friday as required.

Happy to discuss as required.....

D

SUGGESTED KEY POINTS FOR POSSIBLE PRESS RELEASE –

- SEPA and the fish-farming sector carry out general monitoring of the overall health of the seabed close to individual fish farms. This monitoring has shown that at a small number of fish farms residues from the use of the sea louse medicine, Slice are present at levels around or in some cases slightly above the safe environmental standard.
- Slice is based on the active ingredient emamectin benzoate and SEPA seeks through the licensing framework to carefully control releases of this substance. This is because emamectin benzoate like all other chemicals used as sea louse medicines may pose a risk to marine life if use is not limited to ensure levels in the environment remain below safe levels.
- SEPA invited the Scottish Aquaculture Research Forum (SARF) to commission research to further analyse our data. This analysis identified a subtle but statistically likely, and unexpected, association between impact on the marine environment and the use of

Slice. This suggests that the environment may not be adequately protected by the current system of regulation for Slice.

- Where robust evidence suggests that some part of our regulatory regime is not providing the expected and required level of environmental protection, we must take action to reduce or remove the potential for those impacts.
- In this case, we are intending to change the way in which Slice use is permitted in fish farm licences. In addition to the change in permitted use, we have informed fish farm operators of SEPA's position that, unless we see new and compelling evidence to support continued use, the ability to use Slice is likely to be phased out over the next two years.

FURTHER QUESTIONS FOR Q&A

- SEPA is taking action based on the SARF report. Yet the preamble to the report undermines the content of the report and suggests that further research is required. Why is SEPA taking further action on a report which appears to be highly disputed?
While the preamble of the report is critical of various technical aspects of the research work, it does not contradict the main conclusion that there appears to be an association between the use of the sea louse medicine Slice on fish farms and impacts on crustacean populations in the waterbodies where those fish farms are situated.
- Are there viable and accessible alternatives which the fish farm industry can use instead of SLICE? (this is on the original Q&A but think we need a fuller answer).
There are a number of alternative authorised medicines and in addition to these chemical based solutions, there are a number of other methods for louse removal either in development or in use on fish farms in Scotland and internationally. These include the use of "cleaner-fish" such as wrasse and lumpfish. These small fish feed on the sea lice found on farmed salmon thus removing the parasites from the farmed fish. In addition to cleaner-fish, a number of mechanical solutions are available. These include systems using warm water for example the "Thermolicer" see <http://www.steinsvik.no/en/products/e/seaculture/fish-health/thermolicer> and technology using lasers for example "Stingray" http://en.stingray.no/page/6019/Sea_Lice to remove lice. Slice is currently an important part of the Scottish fish farmers' arsenal in the war against lice and SEPA's proposal is not to immediately remove the product from the marketplace but phase the product out over a timescale which will allow development of these and other alternatives to advance.

- **Is SEPA using the report as an excuse to undermine the fish farm industry?**
No, SEPA supports the growth and development of a sustainable fish farming sector, however the evidence in this report potentially undermines the sustainability of the sector as it demonstrates a statistically likely link between impacts on the wider environment and the operation of fish farms. SEPA has always accepted and expected that fish farming will have a localised impact on the seabed around the farm but this new evidence suggests a more widespread effect upon the environment.
- **Why is there such a difference in how SEPA appears to be reading the report compared to how fish-farm bodies appear to be reading the report?**
SEPA accepts the conclusion in the report that there appears to be an association between the use of the sea louse medicine Slice with impacts on the environment. It is SEPA's responsibility to take action where it appears that some element of the regulatory framework is not providing environmental protection. Other bodies involved may not have such a duty.

10 August 2016 - 9.37am:

From: Baird, Stuart
Sent: 10 August 2016 09:37
To: Sinclair, Douglas; MacNaught, Kevin
Cc: Wells, Mark
Subject: RE: SLICE
Attachments: SLICE QA for PAMP report Draft.docx

Sensitivity: Confidential



Thanks Douglas,

I've further updated the Q&A document as we had anticipated a few additional questions from the 'wrapper', along the lines of the ones you have posed here. Latest version is attached.

Stuart

10 August 2016 - 9.51am:

The Scottish Government's civil servant shill for the salmon farming industry (Willie Cowan) suggests that SEPA's briefing includes: "The news release is SEPA's response to the scientific study and is being substantially revised this morning [- to the extent that the industry's key concern about a specified date for the possible withdrawal of Slice being removed - TERRY?];

From: Willie.Cowan@gov.scot [mailto:Willie.Cowan@gov.scot]
Sent: 10 August 2016 09:51
To: George.Burgess@gov.scot; Neil.Ritchie@gov.scot; Ahearn, Terry
Subject: FW: URGENT: Scott Landsburgh SSPO
Importance: High

George / Neil / Terry

See below - Ms Cunningham has asked to be fully briefed on this issue by mid-morning. I note below some suggested text covering our interests in the specific questions she raised yesterday but I wonder whether she needs a couple of paragraphs of background on SEPA's position as regards the research and its response to it?

Given all this is in relation to SEPA's position on a bit of research it asked for, I think the response to RC is better coming from you or Terry.

Happy to discuss.

Willie

- The draft release is silent about what the industry is expected to do as an alternative – would have expected to see something about how industry will be supported in consequence of this change – is there anything that can be added in that regard?

The news release is SEPA's response to the scientific study and is being substantially revised this morning [- to the extent that the industry's key concern about having a specified date for the possible withdrawal of Slice being removed – TERRY?]. The revised SEPA note will reference their willingness to continue to work with the industry to consider new and innovative operating models that could enable the industry to grow without unacceptable environmental impacts. Not for the note, but related to the last point on new operating models and innovation, the SG has supported the SAIC

with £11m over 5 years to be match-funded by industry.

In terms of alternative medicinal treatments this is an issue for SEPA/Veterinary Medicines Directorate (VMD) in DEFRA. We know, for example, that a new in-feed treatment is now authorised in Chile and is being trialled elsewhere (wouldn't be a panacea) and may eventually be introduced here though, thus far, SEPA have been sufficiently concerned about its benthic impact to be wary of allowing a trial in Scotland. In reality, whilst biological solutions such as cleanerfish and mechanical ones such as thermoclers are now being mainstreamed (albeit slower than we would have liked), farmers/vets will always be looking for medicinal back-up and Slice is just about the only game in town currently alongside hydrogen peroxide.

Ms Cunningham also recalls being told recently that Norway is also phasing this out – is this correct? If so, do they have alternatives in place and any evidence about their efficacy?

We are not aware that Norway are considering the withdrawal of Slice but SEPA/VMD may know more. But the Norwegians, and Canada, are watching SEPA's position very carefully given potentially knock-on implications for them if Slice were withdrawn. And their alternatives are also limited and pretty much the same as ours. Worth noting here that farmers (internationally) haven't helped themselves by using Slice to a point where the efficacy of the medicine in treating sea lice has been reducing rapidly thereby requiring more treatments to achieve the same effect – a vicious circle which may well see the medicine lose its value over the next few years.

As previously noted, we are encouraging the industry to reduce the risk from sea lice through moves to an improved operating model which designs out much of the sea lice issue at first principles by moving to higher energy waters and utilising larger smolts which reduce the marine phase of the salmon's life and consequently reduces the potential for disease, sea lice and interaction with wild fish.

- [Is there any time pressure for this release? Does it have to go tomorrow?](#)

No time pressure for the SEPA release per se from our perspective but SEPA's position may well be requested today/tomorrow in any case following the publication of the Scottish Aquaculture Research Forum's (an independent charity) report on Slice scheduled for mid-day today. This timing is out-with SEPA's control.

Willie Cowan

Head of Performance, Aquaculture and Recreational Fisheries

Marine Scotland

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

Tel: +44 (0)131 244 6265

Fax: +44 (0)131 244 6511

e: willie.cowan@gov.scot

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

10 August 2016 - 10.35am:

SEPA's Chief Executive Officer Terry A'Hearn instructs SEPA's Head of Strategic Communications Mark Wells to edit and "start from scratch if you want" in an email marked 'High Importance':

From: [Ahearn, Terry](#)
To: [Wells, Mark](#)
Subject: FW: URGENT: Scott Landsburgh SSPO
Date: 10 August 2016 10:35:05
Attachments: [image001.png](#)
Importance: High

Mark,

Please edit. Start from scratch if you want.

Terry.

10 August 2016 - 12.28pm:

Neil Ritchie refers to "our discussions last night and his subsequent reflection" (i.e. Terry A'Hearn - Chief Executive Officer of SEPA):

From: Ritchie N (Neil)
Sent: 10 August 2016 12:28
To: Cabinet Secretary for the Environment, Climate Change and Land Reform; Smith K (Kate)
Cc: Mitchell A (Alastair); Higgins K (Kate); Miller D (David); Director of Marine Scotland Mailbox; Cowan WJ (Willie); Haddon P (Paul); Barber J (Jill); Burgess WG (George)
Subject: RE: URGENT: Scott Landsburgh SSPO

David

SEPA are providing us with a note on some of the Cabinet Secretary's question which we will pass on as soon as it is received (which is expected to be shortly). However following our discussions last night and his subsequent reflection has been that SEPA will not issue an article along the lines that had been initially proposed and will hold reactive lines if approached. They are continuing to be in dialogue with SSPO.

Neil

Neil Ritchie
Environmental Quality Division
Scottish Government
0131 244 7250

10 August 2016 - 12.33pm:

SEPA's Chief Executive Officer Terry A'Hearn drafts a proposed briefing for the Cabinet Secretary - including the concession that "Neither SEPA nor the industry are proposing to undertake proactive communications at this stage":

From: Ahearn, Terry [<mailto:terry.ahearn@sepa.org.uk>]
Sent: 10 August 2016 12:33
To: Cowan WJ (Willie); Burgess WG (George); Ritchie N (Neil)
Cc: Wells, Mark
Subject: RE: URGENT: Scott Landsburgh SSPO

All, proposed briefing for Cabinet Secretary. Terry.

Regulation by SEPA of the use of the sea louse medicine SLICE by Scottish fish farms

Briefing for Cabinet Secretary 10 August 2016

There are a number of methods of controlling sea lice in marine fish-farms, including the use of authorised medicines either as a bath, or an in-feed treatment such as Emamectin Benzoate (the active ingredient in SLICE). The use of these treatments is regulated by SEPA through fish farm licence conditions, set using the best available evidence, with the aim of ensuring that the residues in the environment are within independently derived safe environmental standards and environmental impacts are within acceptable levels.

Monitoring has generally not shown significant impacts on marine animals in the wider marine environment, but SEPA is aware of anecdotal claims that sea louse treatments might be having an unexpected adverse environmental impact at this scale. In response, SEPA has undertaken a more detailed study into the seabed in the Shuna Sound area, in which there are a number of fish farms which have used in-feed sea louse treatments. This study has confirmed a more extensive spread within the marine environment of low levels of the residues arising from the use of the sea louse treatment Slice, than had been expected when the medicine was first authorised, or had been predicted by detailed modelling.

SEPA also invited the Scottish Aquaculture Research Forum (SARF) to commission research to determine whether there is compelling evidence of the environmental impacts suggested by the anecdotal claims. This analysis identified a subtle but detectable, and unexpected, association between impact on the marine environment and the use of Slice.

SEPA is also aware, and are concerned, that in many cases the frequency and dose of Slice treatments have regularly exceeded what was expected when the current licence framework was developed. The new treatment patterns may reflect the fact that the treatment is becoming less effective, probably as sea lice become more resistant to the medicine.

In response to this new evidence, SEPA is intending to change the way in which SLICE is permitted, tightening restrictions on the use of the medicine. These arrangements are likely to remain in place for a period of two years, allowing the sector to carry out further research to confirm or confound the apparent link between SLICE and possible environmental effects. SEPA will also be undertaking further analysis and monitoring during this period. If, during the next two years, no compelling case is made to support the continued use of the product, it is likely that the ability to use SLICE will be phased out by SEPA.

The next steps will be a good example of how SEPA's new Regulatory Strategy will be implemented.

We have informed fish farm operators of SEPA's views. We are working in partnership with the industry, including the Scottish Aquaculture Innovation Centre (which Scottish Government has supported with £11m over 5 years, to be match-funded by the industry), to explore the potential for the development of alternative means of controlling sea lice, which minimise the risk to our marine environment. The challenge of controlling sea lice in fish farms is not unique to Scotland, and the development of alternative means

represents an opportunity for Scotland's aquaculture sector.

Alternative medicinal treatments are a matter for SEPA/Veterinary Medicines Directorate (VMD) in DEFRA. A new in-feed treatment is being trialled elsewhere, although SEPA does have concerns about its impact and is wary of allowing a trial in Scotland. In reality, whilst biological solutions such as cleaner-fish, and mechanical ones such as thermolicers, are now beginning to be mainstreamed, medicinal back-up is still required and SLICE is one of the very limited options, alongside hydrogen peroxide. The industry is also exploring an improved operating model which designs out much of the sea lice issue at first principles by moving to higher energy waters and utilising larger smolts which reduce the marine phase of the salmon's life and consequently reduces the potential for disease, and sea lice and interaction with wild fish.

The SEPA Chief Executive is strongly involved in these discussions with CEOs in the sector. This high-level engagement will continue to ensure the proper management of SLICE and momentum is maintained to develop alternative methods of controlling sea lice.

The SARF report has been published today. Neither SEPA nor the industry are proposing to undertake proactive communications at this stage, but SEPA has prepared for possible enquiries around the subject once the report is published. SEPA will include reference to its decision in its next Chief Executive's report to the Agency Board, on 26 September.

Sent with Good (www.good.com)

10 August 2016 - 12.46pm:

The Scottish Government's Willie Cowan (Head of Performance, Aquaculture & Recreational Fisheries) expresses "real concerns re para 5 which continues to quote a 2 year timeline albeit the language on making a compelling case has been softened" and refers to a "defined 2 year ticking bomb (as the industry see it)":

From: Willie.Cowan@gov.scot [Willie.Cowan@gov.scot]
Sent: Wednesday, August 10, 2016 12:46 PM GMT Standard Time
To: Ahearn, Terry; George.Burgess@gov.scot; Neil.Ritchie@gov.scot
Cc: Wells, Mark; Alastair.Mitchell@gov.scot
Subject: RE: URGENT: Scott Landsburgh SSPO

Thanks Terry

We still have real concerns re para 5 which continues to quote a 2 year timeline albeit the language on making a compelling case has been softened. I appreciate that (at this time) this is for internal consumption but it is likely that we will require to comment publically at some point – so advice should reflect what we would say too. In that regard, if you could nuance the defined 2 year ticking bomb (as the industry see it), shifting the onus to a timeline dependant on the needs of the required research to determine further evidence of impact then that would be preferable. That does not, of course, preclude you from doing that within 2 years.

Willie

Willie Cowan

Head of Performance, Aquaculture and Recreational Fisheries
Marine Scotland
Scottish Government | Area 1B North | Victoria Quay | Edinburgh | EH6 6QQ
Tel: +44 (0)131 244 6265
Mob:+
Fax: +44 (0)131 244 6511
e: willie.cowan@gov.scot
w: <http://www.scotland.gov.uk/marinescotland>

10 August 2016 - 1.19pm:

SEPA's Chief Executive Terry A'Hearn suggests a re-draft to the Scottish Government:

From: Ahearn, Terry [<mailto:terry.ahern@sepa.org.uk>]
Sent: 10 August 2016 13:19
To: Cowan WJ (Willie); Burgess WG (George); Ritchie N (Neil)
Cc: Wells, Mark; Mitchell A (Alastair)
Subject: RE: URGENT: Scott Landsburgh SSPO

How about:

"In response to this new evidence, SEPA is intending to change the way in which SLICE is permitted, tightening restrictions on the use of the medicine. These arrangements will be continually monitored and reviewed. At the same time, the sector will carry out further research to confirm or confound the apparent link between SLICE and possible environmental effects. SEPA, itself, will also be undertaking further analysis and monitoring. The priority over this period will be to agree long-term viable solutions to sea

lice. This will focus on a number of possible solutions and, depending on the additional research and analysis, could involve the phasing out of SLICE."

Sent with Good (www.good.com)

10 August 2016 - 1.21pm:

The Scottish Government's [Deputy Director of Environmental Quality, George Burgess](#) ([involved in a previous FOI re. Abdelbaset Ali Mohamed Al-Megrahi when working in the Criminal Justice Directorate](#) and since September 2016 working as [Deputy Director for EU and International Trade and Investment Policy](#)) suggests losing "over this period" in the draft:

From: Burgess WG (George)
Sent: 10 August 2016 13:21
To: Ahearn, Terry; Cowan WJ (Willie); Ritchie N (Neil)
Cc: Wells, Mark; Mitchell A (Alastair)
Subject: RE: URGENT: Scott Landsburgh SSPO

Perhaps lose the "over this period" in penultimate sentence – begs the question "what period?"

George

10 August 2016 - 1.32pm:

The Scottish Government's Willie Cowan (since moved to a new department) is "happy with that" (i.e. losing the "over this period" reference):

From: Willie.Cowan@gov.scot
To: George.Burgess@gov.scot; Ahearn, Terry; Neil.Ritchie@gov.scot
Cc: Wells, Mark; Alastair.Mitchell@gov.scot
Subject: RE: URGENT: Scott Landsburgh SSPO
Date: 10 August 2016 13:32:13
Attachments: [image001.png](#)

Thanks Terry / George; happy with that.

Willie

Willie Cowan

Head of Performance, Aquaculture and Recreational Fisheries
Marine Scotland
Scottish Government | Area 1B North | Victoria Quay | Edinburgh | EH6 6QQ
Tel: +44 (0)131 244 6265

Fax: +44 (0)131 244 6511
e: willie.cowan@gov.scot
w: <http://www.scotland.gov.uk/marinescotland>

10 August 2016 - 1.48pm:

SEPA's Chief Executive Officer says "Agreed" (i.e. he unilaterally agrees to the Scottish Government's censoring of SEPA policy to ban Slice - without any discussion with SEPA colleagues, judging by the lack of emails to SEPA staff):

From: Ahearn, Terry [<mailto:terry.ahearn@sepa.org.uk>]
Sent: 10 August 2016 13:44
To: Burgess WG (George); Cowan WJ (Willie); Ritchie N (Neil)
Cc: Wells, Mark; Mitchell A (Alastair)
Subject: RE: URGENT: Scott Landsburgh SSPO

Agreed.

Sent with Good (www.good.com)

10 August 2016 - 1.48pm:

From: Neil.Ritchie@gov.scot [mailto:Neil.Ritchie@gov.scot]
Sent: 10 August 2016 13:48
To: Ahearn, Terry; George.Burgess@gov.scot; Willie.Cowan@gov.scot
Cc: Wells, Mark; Alastair.Mitchell@gov.scot
Subject: RE: URGENT: Scott Landsburgh SSPO

Mark – thanks to all; for consistency can you send me updated text and I will forward up to RC's office. Thanks. Neil

Neil Ritchie
Environmental Quality Division
Scottish Government
0131 244 7250

Neil.ritchie@gov.scot

10 August 2016 - 2.20pm:

[SEPA's Head of Strategic Communications, Mark Wells](#), emails the "final text" with the offending reference to a two-year time-line to ban Slice exorcised (i.e. the Scottish Government successfully lobotomised SEPA):

From: Wells, Mark
Sent: 10 August 2016 14:20
To: 'Neil.Ritchie@gov.scot'; Ahearn, Terry; George.Burgess@gov.scot; Willie.Cowan@gov.scot
Cc: Alastair.Mitchell@gov.scot
Subject: RE: URGENT: Scott Landsburgh SSPO

Here's the final text:

Regulation by SEPA of the use of the sea louse medicine SLICE by Scottish fish farms

Briefing for Cabinet Secretary 10 August 2016

There are a number of methods of controlling sea lice in marine fish-farms, including the use of authorised medicines either as a bath, or an in-feed treatment such as Emamectin Benzoate (the active ingredient in SLICE). The use of these treatments is regulated by SEPA through fish farm licence conditions, set using the best available evidence, with the aim of ensuring that the residues in the environment are within independently derived safe environmental standards and environmental impacts are within acceptable levels.

Monitoring has generally not shown significant impacts on marine animals in the wider marine environment, but SEPA is aware of anecdotal claims that sea louse treatments might be having an unexpected adverse environmental impact at this scale. In response, SEPA has undertaken a more detailed study into the seabed in the Shuna Sound area, in which there are a number of fish farms which have used in-feed sea louse treatments. This study has confirmed a more extensive spread within the marine environment of low levels of the residues arising from the use of the sea louse treatment Slice, than had been expected when the medicine was first authorised, or had been predicted by detailed modelling.

SEPA also invited the Scottish Aquaculture Research Forum (SARF) to commission research to determine whether there is compelling evidence of the environmental impacts suggested by the anecdotal claims. This analysis identified a subtle but detectable, and unexpected, association between impact on the marine environment and the use of Slice.

SEPA is also aware, and are concerned, that in many cases the frequency and dose of SLICE treatments have regularly exceeded what was expected when the current licence framework was developed. The new treatment patterns may reflect the fact that the treatment is becoming less effective, probably as sea lice become more resistant to the medicine.

In response to this new evidence, SEPA is intending to change the way in which SLICE is permitted, tightening restrictions on the use of the medicine. These arrangements will be continually monitored and reviewed. At the same time, the sector will carry out further research to confirm or confound the apparent link between SLICE and possible environmental effects. SEPA, itself, will also be undertaking further analysis and monitoring. The priority over will be to agree long-term viable solutions to sea lice. This will focus on a number of possible solutions and, depending on the additional research and analysis, could involve the phasing out of SLICE.

The next steps will be a good example of how SEPA's new Regulatory Strategy will be implemented.

We have informed fish farm operators of SEPA's views. We are working in partnership with the industry, including the Scottish Aquaculture Innovation Centre (which Scottish Government has supported with £11m over 5 years, to be match-funded by the industry), to explore the potential for the development of alternative means of controlling sea lice, which minimise the risk to our marine environment. The challenge of controlling sea lice in fish farms is not unique to Scotland, and the development of alternative means represents an opportunity for Scotland's aquaculture sector.

Alternative medicinal treatments are a matter for SEPA/Veterinary Medicines Directorate (VMD) in DEFRA. A new in-feed treatment is being trialled elsewhere, although SEPA does have concerns about its impact and is wary of allowing a trial in Scotland. In reality, whilst biological solutions such as cleaner-fish, and mechanical ones such as thermolicers, are now beginning to be mainstreamed, medicinal back-up is still required and SLICE is one of the very limited options, alongside hydrogen peroxide. The industry is also exploring an improved operating model which designs out much of the sea lice issue at first principles by moving to higher energy waters and utilising larger smolts which reduce the marine phase of the salmon's life and consequently reduces the potential for disease, and sea lice and interaction with wild fish.

The SEPA Chief Executive is strongly involved in these discussions with CEOs in the sector. This high-level engagement will continue to ensure the proper management of SLICE and momentum is maintained to develop alternative methods of controlling sea lice.

The SARF report has been published today. Neither SEPA nor the industry are proposing to undertake proactive communications at this stage, but SEPA has prepared for possible enquiries around the subject once the report is published. SEPA will include reference to its decision in its next Chief Executive's report to the Agency Board, on 26 September.

10 August 2016 -2.39pm:

SEPA's briefing for the Cabinet Secretary ends with "SEPA will include reference to its decision in its next Chief Executive's report to the Agency Board, on 26 September":

From: Ritchie N (Neil)
Sent: Wednesday, 10 August 2016 14:39
To: Cabinet Secretary for the Environment, Climate Change and Land Reform; Smith K (Kate)
Cc: Mitchell A (Alastair); Higgins K (Kate); Miller D (David); Director of Marine Scotland Mailbox; Cowan WJ (Willie); Haddon P (Paul); Barber J (Jill); Burgess WG (George)
Subject: RE: URGENT: Scott Landsburgh SSPO

David

As trailed earlier the following is briefing SEPA has provided to respond to the Cabinet secretary's questions with some further background and an explanation of next steps.

Regulation by SEPA of the use of the sea louse medicine SLICE by Scottish fish farms

Briefing for Cabinet Secretary 10 August 2016

There are a number of methods of controlling sea lice in marine fish-farms, including the use of authorised medicines either as a bath, or an in-feed treatment such as Emamectin Benzoate (the active ingredient in SLICE). The use of these treatments is regulated by SEPA through fish farm licence conditions, set using the best available evidence, with the aim of ensuring that the residues in the environment are within independently derived safe environmental standards and environmental impacts are within acceptable levels.

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In response to this new evidence, SEPA is intending to change the way in which SLICE is permitted, tightening restrictions on the use of the medicine. These arrangements will be continually monitored and reviewed. At the same time, the sector will carry out further research to confirm or confound the apparent link between SLICE and possible environmental effects. SEPA, itself, will also be undertaking further analysis and monitoring. The priority over will be to agree long-term viable solutions to sea lice. This will focus on a number of possible solutions and, depending on the additional research and analysis, could involve the phasing out of SLICE.

The next steps will be a good example of how SEPA's new Regulatory Strategy will be implemented.

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Alternative medicinal treatments are a matter for SEPA/Veterinary Medicines Directorate (VMD) in DEFRA. A new in-feed treatment is being trialled elsewhere, although SEPA does have concerns about its impact and is wary of allowing a trial in Scotland. In reality, whilst biological solutions such as cleaner-fish, and mechanical ones such as thermolicers, are now beginning to be mainstreamed, medicinal back-up is still required and SLICE is one of the very limited options, alongside hydrogen peroxide. The industry is also exploring an improved operating model which designs out much of the sea lice issue at first principles by moving to higher energy waters and utilising larger smolts which reduce the marine phase of the salmon's life and consequently reduces the potential for disease, and sea lice and interaction with wild fish.

The SEPA Chief Executive is strongly involved in these discussions with CEOs in the sector. This high-level engagement will continue to ensure the proper management of SLICE and momentum is maintained to develop alternative methods of controlling sea lice.

The SARF report has been published today. Neither SEPA nor the industry are proposing to undertake proactive communications at this stage, but SEPA has prepared for possible enquiries around the subject once the report is published. SEPA will include reference to its decision in its next Chief Executive's report to the Agency Board, on 26 September.

Neil Ritchie
Environmental Quality Division
Scottish Government
0131 244 7250

Neil.ritchie@gov.scot

25 August 2016:

SEPA concedes that "our draft release was not used, and it will not be used in its present form":

From: Rosie, Andy [<mailto:andy.rosie@sepa.org.uk>]
Sent: 25 August 2016 14:13
To: Burgess WG (George); Sinclair, Douglas
Cc: Ritchie N (Neil)
Subject: RE: URGENT: Scott Landsburgh SSPO

Hi George,

Douglas Sinclair will be in touch later this afternoon with more detail.

Our draft release was not used, and it will not be used in its present form.

We've been in contact with manufacturers Merck and they propose some further investigations.

It remains to be seen if they can shed more light on the issues flagged up by the SARF report.

I'm not aware of any plans by Norway to phase Slice out, but Douglas will respond on this also.

Best regards,

Andy

Andy Rosie,

Head of SEPA's Sector Team

SEPA Dingwall Office,

Graesser House, Fodderty Way, Dingwall, IV15 9XB

e-mail andy.rosie@sepa.org.uk

tel. 01349 862021

25 August 2016:

Douglas Sinclair informs the Scottish Government that "SEPA has not sought to issue a pro-active press release on the Slice issue":

As to the wider issue in the e-mail chain below, SEPA has not sought to issue a pro-active press release on the Slice issue and as Andy says, we have held discussions with the owners of the product wrt the options for further research.

From: [Sinclair, Douglas](#)
To: ["George.Burgess@gov.scot"](#); [Rosie, Andy](#)
Cc: [Neil.Ritchie@gov.scot](#)
Subject: RE: URGENT: Scott Landsburgh SSPO
Date: 25 August 2016 15:40:29

Hi George

I was asked recently about Norway's plans wrt to Slice and a possible phase out but I can find no evidence of this at all, I am sure that if there were firm plans and these were in train then the sector related media would be alive with the story and it isn't.

I am aware in the last year or two concerns in the Norwegian media regarding the other systemic sea louse medicines called Calicide or Ektobann based on the active ingredient teflubenzuron. These stories reported residues being found following use of this product on Norwegian farms but even in that case I don't think there has been any move to ban or withdraw the substance/product.

As to the wider issue in the e-mail chain below, SEPA has not sought to issue a pro-active press release on the Slice issue and as Andy says, we have held discussions with the owners of the product wrt the options for further research.

Happy to provide more information as required, Andy is not available but I am in the office until 5-ish if you need to discuss.

29 August 2016 - 12.10pm:

[SEPA's Head of Strategic Communications, Mark Wells](#), emails a first draft of a SLICE Board report:

From: Wells, Mark
Sent: 29 August 2016 12:10
To: Baird, Stuart; Sinclair, Douglas
Cc: MacNaught, Kevin
Subject: SLICE Board report item DRAFT

Attached is a first draft at a piece for the Board report, by way of prompting comment/input

Cheers

MARK

Here's the first draft with various comments:

Regulation of the use of the sea louse treatment SLICE at Scottish fish farms

Sea lice can be a problem when large numbers of fish are concentrated in fish-farms. One method of controlling sea lice is the use of authorised medicines as an in-feed treatment. SEPA controls the use of such medicines by conditions included in our fish farm licences. The aim of the controls on use being to restrict the concentrations of residues in the environment to within a safe environmental standard. The approach used by SEPA is based on, using the best available evidence. Recent research has confirmed a subtle but statistically likely, and unexpected, association between impact on the marine environment and the use of the sea louse medicine SLICE, containing the active ingredient emamectin benzoate.

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- Deleted: is

Where robust evidence suggests that some part of our regulatory regime is not providing the expected and required level of environmental protection, we must take action to reduce or remove the potential for those impacts. In this case, and following careful consideration, we are intending to change the conditions under which the use of SLICE is permitted by SEPA through fish farm licences. This will allow the medicine to continue to be available to fish farmers, but subject to tighter restrictions on the frequency and quantity of use. These arrangements are likely to remain in place for a period of two years which will allow SEPA and the industry to carry out further research to either confirm or confound the apparent link between SLICE use and possible environmental effects.

SEPA is also seeking a review of the environmental quality standard and for Slice and is working in partnership with the fish farming industry, the Scottish Government, the Scottish Aquaculture Innovation Centre and other key partners, to explore the potential for the development of alternative means of controlling sea lice, which minimise the risk to our marine environment.

Several articles have appeared in the press recently reporting that the industry is actively looking into alternative means of sea louse treatment. The Scottish Aquaculture Innovation Centre has issued a press release on its investment in projects to drive forward the use of cleanerfish. Additionally, fish farming companies such as Scottish Seafarms Ltd have invested in non-medicinal means of removing lice where the salmon are briefly bathed in lukewarm water. SEPA is strongly supportive of these alternative approaches.

- Deleted: diagnostics and
- Deleted: recently
- Deleted: Improve biodiversity and fish health in farming
- Deleted: This includes an 18-month project, led by Marine Harvest Scotland in partnership with the Scottish Association for Marine Sciences, UHI Inverness College, Rivers and Lochs Institute and SEPA, to develop a new, more efficient method of monitoring the diversity of organisms living in the seabed around fish cages.

29 August 2016 - 3.18pm:

SEPA's Stuart Baird comments "that is suitably bland as not to set too many hares a racing" and "I don't expect that we want to mention the SARF report by name":

From: Baird, Stuart
Sent: 29 August 2016 15:18
To: Wells, Mark; Sinclair, Douglas
Cc: MacNaught, Kevin
Subject: RE: SLICE Board report item DRAFT

Mark,

that is suitably bland as not to set too many hares a racing. I don't expect that we want to mention the SARF report by name.

It may be worth mentioning that we are seeking a review of the Environmental standard as well as awaiting the further research.

Stuart

31 August 2016:

From: McLean, Margaret
Sent: 31 August 2016 11:08
To: Carlin, Fiona; Cunningham, Catherine; Faichney, Jenny; Fotheringham, Beth; Green, Jo; Henderson, Gavin; Johnston, Carol; Lovell, Fraser; Mackinnon, Alison; Martin, Fiona; Miller, Dawn; Moffat, Lorraine; Russell, Jennifer; Stephan, Setareh; Turner, Anne; York, Alison
Subject: CEO Board report for Board Meeting on 26 September

Hi All

Please note the deadline for submissions for the above report is 5 September, thanks.

Kind regards
Margaret

Margaret McLean
Personal Assistant to Terry A'Hearn
Chief Executive

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

T: 01786 457701

e: Margaret.McLean@sepa.org.uk

w: www.sepa.org.uk

-----Original Message-----

From: Henderson, Gavin
Sent: Wednesday, August 31, 2016 11:41 AM GMT Standard Time
To: Howard, Gayle; Ballantyne, Craig; MacNaught, Kevin; Wells, Mark
Subject: FW: CEO Board report for Board Meeting on 26 September

FYI - Next board report date

1 September 2016:

From: Wells, Mark
Sent: 01 September 2016 09:00
To: MacNaught, Kevin
Cc: Sinclair, Douglas; Baird, Stuart
Subject: FW: CEO Board report for Board Meeting on 26 September

1

Please note timescale - that's Monday!

Could you see about adding a bit to my draft which covers the recent SAIC announcements around innovation and research, particularly the sea louse project, referencing the fact that the industry is actively looking into alternative sea louse diagnostics and treatment.

Will catch up tomorrow

Cheers

-----Original Message-----

From: MacNaught, Kevin
Sent: Thursday, September 01, 2016 01:55 PM GMT Standard Time
To: Wells, Mark; Sinclair, Douglas; Baird, Stuart
Subject: RE: CEO Board report for Board Meeting on 26 September

Hi all, have added info on the SAIC announcements into the attached and included a reference to the review of the environmental quality standard. Can you please check to see if you are happy with this?

Thanks,

Kevin

From: Wells, Mark
Sent: 01 September 2016 14:17
To: MacNaught, Kevin; Sinclair, Douglas; Baird, Stuart
Subject: RE: CEO Board report for Board Meeting on 26 September

Thanks Kev - was there something more specific in the SAIC stuff about sea louse treatment? I thought so. If so, could we beef up that but a little.
Cheers

From: MacNaught, Kevin
Sent: 01 September 2016 14:51
To: Wells, Mark; Sinclair, Douglas; Baird, Stuart
Subject: RE: CEO Board report for Board Meeting on 26 September

More info included in the attached.
Cheers

From: Baird, Stuart
Sent: 01 September 2016 16:55
To: MacNaught, Kevin; Wells, Mark; Sinclair, Douglas
Subject: RE: CEO Board report for Board Meeting on 26 September

Hopefully Douglas will have a chance to review before Monday, it looks ok to me but I'm not involved in SAIC stuff.

We are still seeking funding for the EQS review so some visibility of this at AMT level will be helpful in securing funding.

Stuart

2 September 2016:

From: Sinclair, Douglas
Sent: 02 September 2016 16:04
To: MacNaught, Kevin; Wells, Mark; Baird, Stuart
Subject: RE: CEO Board report for Board Meeting on 26 September
Attachments: SLICE Board Report item DRAFT -km additions.DS.docx

Hi folks

I have made a few changes to this. While the SAIC project on seabed assessment techniques is topical, it doesn't connect that directly to the Scie of sea louse treatment issues, if we are wanting to include news from SAIC then the cleanerfish work, see: <http://scottishaquaculture.com/non-medicinal-sea-lice-control-takes-another-step-forward/> is more relevant as is the investment in non-medicinal louse removal by SSF, see: <http://www.bbc.co.uk/news/uk-scotland-scotland-business-36815399> albeit that both of these stories are 6-8 weeks old.

Happy to discuss as ever.

D

Douglas Sinclair
Specialist I (Aquaculture)
SEPA Orkney Office
Norlantic House
KIRKWALL
Orkney
KW15 1GR

Tel: 01856 871080
Mob:
Fax: 01856 871090
SEPA Extn: 2729
E-mail: douglas.sinclair@sepa.org.uk

13 September 2016:

From: Faichney, Jenny
Sent: 13 September 2016 11:06
To: Ahearn, Terry
Cc: McLean, Margaret; Moffat, Lorraine; McWhirter, Jennifer; Brodie, Donna; Green, Jo; Carroll, Denise; Wells, Mark; Lovell, Fraser
Subject: CEO Report to the Board - Sept meeting (text for approval for sending to SG)
Importance: High

Hi Terry,

I've attached the latest version of your draft Board report to approve before it goes to SG tomorrow.

Regulatory Services Legal (Fraser) and Comms (Mark) have already reviewed this version and we have one outstanding query re Para 1.1.6 (p4) on '**Regulation of the use of the sea louse treatment SLICE at Scottish fish farms**'. We wanted to ensure that you are happy with that text being in the public domain given the external queries likely to be generated from your report once it is on SEPA's website.

Fraser expressed concerns about saying SEPA intends to change the licence conditions as people could seek to see relevant documentation, e.g. under FOI, before a decision is formally made and it may take some time for SEPA to consider and process such requests.

An alternative way of handling this could be to remove this section from your written report but for the Board to be verbally advised of this issue when Bob speaks about the meeting with the SSPO in his update to the Board. *The paragraphs could go into the annotated agenda as a prompt and the minute of the meeting will reflect the update in brief.*

I also spoke to Jenn about the possibility of having this as a standalone agenda item for the Board to be informed in private, but we consider that this is likely to also generate FOI enquiries by drawing further attention to the issue on the agenda.

Please let me know what your preference is for this text and we'll ensure the SG get the approved version of your report, together with your intro, tomorrow to review.

Many thanks

14 September 2016:

From: Moffat, Lorraine
Sent: 14 September 2016 15:06
To: McLean, Margaret
Subject: FW: CEO Report to the Board - Sept meeting (text for approval for sending to SG)
Importance: High

Hi Margaret

Has Terry approved this for Scot Gov and answered Jenny's query.

Thanks

Lorraine Moffat
Senior Administrative Officer
Executive Support
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Email: lorraine.moffat@sepa.org.uk

From: McLean, Margaret
Sent: Wednesday, September 14, 2016 04:19 PM GMT Standard Time
To: Ahearn, Terry
Subject: FW: CEO Report to the Board - Sept meeting (text for approval for sending to SG)

T, please see below from Lorraine

Kind regards
Margaret

From: Ahearn, Terry
Sent: 14 September 2016 16:49
To: McLean, Margaret; Moffat, Lorraine; Faichney, Jenny; Wells, Mark; Lovell, Fraser
Subject: RE: CEO Report to the Board - Sept meeting (text for approval for sending to SG)

All,

My main concern is that the Board is given accurate information.

Given the challenges in getting the wording right and not misleading people, let's drop this material and Bob and I will give a verbal update.

This will ensure we can accurately report the issue and SEPA's current and future action to the Board.

Terry.

1 March 2017:

From: Wells, Mark
Sent: 01 March 2017 11:45
To: Neil.Ritchie@gov.scot; Joyce Carr
Cc: Anderson, Anne
Subject: Aquaculture FOI release and SEPA View article
Importance: High

Neil/Joyce

Please find attached a copy of some of the documents scheduled for release today under FOI – correspondence between SEPA CEO and the aquaculture sector.

Please also find attached an article we intend to publish today in SEPA View outlining our approach to our Aquaculture Sector Plan. We intend publishing this later this afternoon.

Cheers

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Delivering *One Planet Prosperity* – our Sector Plan approach

In August last year, SEPA published our regulatory strategy: *One Planet Prosperity*. This sets out our ambitious aims to transform the way we regulate the environmental performance of Scottish businesses. It is a strategy firmly focused on the challenges and opportunities of the 21st century, and on SEPA's Statutory Purpose to protect and improve the environment; in ways which, as far as possible, also contribute to health and well-being benefits and sustainable economic growth.

Our aims are twofold. Firstly, we want to get every regulated business into compliance with Scottish environmental regulations. By global standards, we already have high rates of compliance. But high is not good enough. Compliance is non-negotiable. We have made it clear that we want and expect all businesses to comply.

But compliance is only the first step towards reaping the very real benefits of excellent environmental performance, which is the basis of our second aim. This is to help as many businesses as possible to improve their environmental performance beyond the compliance standards. This will further improve the Scottish environment. We hope it will also help create more lasting and inclusive economic and social outcomes for Scotland.

Sector Plans – central to our new approach

At the core of our new approach is the concept of Sector Plans. We will be developing a Sector Plan for each sector we regulate. These plans will guide our engagement with the sector, both in terms of driving compliance and going beyond compliance, making sure we use every means possible to achieve the twin aims of our strategy with each business sector.

As this is a completely new concept, in January we selected four sectors to start with: Landfills, Whisky, Fin-fish Aquaculture, and Oil and Gas Decommissioning. These sectors have different compliance records, and are different in structure and issues. This makes them an ideal mix to start with. Sector planning will drive our regulatory approach. So we want and need the widest possible range of input and review to make sure this new approach is as effective as possible. The experience from our first four Sector Plans will inform the development of plans for the remaining sectors SEPA regulates. That will take place over the next two years.

The Sector Plan for Aquaculture

You can expect to hear a lot from us about our first Sector Plans over the coming months. To start this off, we want to talk about our initial work on the Fin-fish Aquaculture sector. Over the past five years the compliance rate in Scotland's aquaculture sector has varied between 80% and 90% (*NB checking exact figures*). SEPA is determined to regulate this sector in a way that improves its environmental performance. We want to drive up compliance levels and help operators to go beyond compliance and ensure Scotland's world-class coastal environment is fully protected. In doing this, we will direct any industry growth to where the marine environment has the capacity to cope.

The two key environmental issues faced by fish-farms are the fish wastes that are deposited on the seabed and the control of sea lice, especially through the use of medicines.

The key to protecting the environment from fish wastes is minimising the amount of waste leaving a caged fish farm. There is currently no way to catch, and either re-use or process these wastes, so the main way of minimising their environmental impact is to limit the number of fish that can be kept in a fish farm. We currently do this through a condition in the licence issued to a site.

Depositional Zone Regulation – a new framework for fish farms

We will soon be consulting on proposals to change the way in which we license fish farms, particularly in relation to the zone impacted by each farm. We believe our proposal for Depositional Zone Regulation (DZR) would improve the regulatory framework for aquaculture, and ensure effective environmental protection. It will help direct development of the sector towards those locations where the environment can accommodate it, while maintaining tight limits on fish numbers (biomass) to protect areas where the environment is more sensitive.

This sector has ambitious growth plans. DZR will ensure that growth only occurs where the combination of appropriate siting, and new techniques and processes, mean the environment can sustain it. It will be supported by Marine Scotland's recently-developed computer modelling software, which will provide more accurate assessment of environmental effects; and by increased environmental monitoring, carried out by SEPA, to ensure impacts remain within acceptable limits. Under these conditions, we believe some fish farms, probably those in deeper waters where tidal flows more effectively disperse wastes, could grow incrementally, by about 10% per year, beyond the current biomass limit.

We plan to launch our consultation on the DZR approach later this month. Aquaculture is a sector which elicits a variety of strong and divergent views, and we welcome the widest and fullest possible response from all those involved in the debate. We need an informed solution which protects the environment and meets the needs of the fish farming industry, the other industries also based in our coastal waters, other coastal water users, and the communities in which fish farms operate.

Managing fish health

The second major issue arises from the management of fish health, in particular the control of sea lice. These small marine parasites occur naturally on many species of fish, but can become a problem when large numbers of fish are concentrated in fish farms. The most common method for controlling sea lice on farmed fish is the use of a medicine authorised by the Veterinary Medicines Directorate (VMD), either in a bath or in feed. The use of in-feed medicines, and any associated release into the marine environment, is regulated by SEPA, under conditions included in a fish farm licence. SEPA ensures adequate monitoring of dose rates and levels, and any impacts of the medicine on the environment. Where robust evidence shows that current regulatory arrangements are not providing the expected and

required level of environmental protection, SEPA takes action to reduce those environmental effects.

For example, in 2013 evidence convinced us that the ongoing use of the sea louse medicine Calicide (with the active ingredient teflubenzuron) was causing failures in environmental quality standards, despite licence conditions significantly restricting its use. Following discussions between SEPA and the company marketing the product, Calicide was removed from the market in Scotland.

More recently, SEPA proposed and part-funded a [Scottish Aquaculture Research Forum](#) (SARF) investigation into the environmental impacts of the sea louse medicine SLICE (with the active ingredient emamectin benzoate). This study, completed last August, confirmed a subtle but detectable, and unexpected, association between impacts on the marine environment and the use of SLICE, where very low concentrations of the medicine may have affected crustaceans in the seabed. Based on this new evidence, SEPA is reviewing all fish farm licences permitting the use of SLICE, tightening conditions for the medicine's use after discussions with VMD. We are beginning the issuing of these new licences this week, and this will be completed by the end of April. This restriction will remain in place while SEPA and the industry carry out further research to either confirm or confound the apparent link between SLICE use and possible environmental effects.

We are also now considering the findings of a review we commissioned of the environmental quality standards for SLICE to ensure they are up to date and provide adequate environmental protection. In this way, the impacts of sea louse medicines are monitored by SEPA on an ongoing basis, and corrective regulatory actions taken where necessary.

As part of our sector approach, we will continue to encourage and support efforts to develop and implement alternative sea louse treatments. For example, novel in-feed medicines are already in use, or undergoing trials, in other countries, but as yet have not been authorised for use in Scotland. Thermal treatment, cleaner-fish which feed on lice, ultrasound, and lasers which target individual lice, are other innovations being developed by the industry as alternatives to medicine-based solutions.

Sector Plans – what next?

These are the foundations for the development of our Fin-fish Aquaculture Sector Plan; ensuring operators achieve full compliance, working together to resolve the environmental challenges facing the industry, and providing a regulatory framework which provides robust environmental protection, enabling growth only where the environment can sustain it. The basis of plans for other sectors will be similar, although the challenges and opportunities will differ. But we are convinced that through our Sector Plan approach we can establish the conditions for positive and constructive engagement with all of the key sectors we regulate. We will use our full range of tools, from enforcement to partnerships, to drive up compliance and help as many businesses as possible to go beyond compliance and realise the many economic and social benefits of excellent environmental performance. Together we can help make *One Planet Prosperity* a reality.

ENDS

From: MacNaught, Kevin
Sent: 01 March 2017 15:14
To: 'PeterJohn.Meiklem@gov.scot'; 'Gillian.Provan@gov.scot'
Cc: 'Victoria.Pescodd@gov.scot';
'CommunicationsRuralEconomy&Environment@gov.scot'
Subject: SEPAView article - fish farms
Attachments: SEPA View article fish farming - 01.03.17.docx

Hi, we are planning to upload an article regarding fish farming to SEPAView after 4pm today.

Please find the article attached for your information.

Regards,

Kevin

Kevin Macnaught
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[Note that GAAIA has requested further documents via FOI and may file appeals with the Scottish Information Commissioner]