From: 10 August 2016 14:40

To: Cabinet Secretary for the Environment, Climate Change and Land Reform;

Cc: Mitchell A (Alastair); ; ; ; ; Director of Marine

Scotland Mailbox; Cowan WJ (Willie);

Subject: RE: URGENT: Scott Landsburgh SSPO

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.

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.

Environmental Quality Division Scottish Government

From:	
Sent: 10 August 2016 12:28	
To: Cabinet Secretary for the Environment, Climate Chan	ge and Land Reform;
Cc: Mitchell A (Alastair);	; Director of Marine Scotland Mailbox; Cowan
WJ (Willie); ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	
Subject: RE: URGENT: Scott Landsburgh SSPO	

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.

Environmental Quality Division Scottish Government 0131 244 7250