

Application of the interim position statement on emamectin benzoate discharges

Technical Guidance

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		Approved by:	David Harley

Existing sites applying to change pen layouts or increase their use of emamectin benzoate

This document provides additional technical guidance on the application of the [interim position statement](#) on emamectin benzoate, published in December 2019. It should only be used when assessing proposals for farm sites that already have an authorisation to use emamectin benzoate.

1. Additional technical guidance

Proposals to increase emamectin benzoate use

Proposals to alter the use of emamectin benzoate will not be authorised under our interim position if they would require an increase in the currently authorised total allowable quantity (“TAQ”) of emamectin benzoate. This is because such proposals would result in the interim standard being exceeded in areas of seabed outwith those in which it is currently exceeded.

Proposals to change pen layouts

Proposed changes to pen layouts can include increasing the number pens, the dimensions of pens or the distances between pens; or moving pens to different locations.

Pen layout changes affect the pattern of deposition of emamectin benzoate on the seabed. This is likely to result in new areas of seabed exceeding the interim standard, even in the absence of increased emamectin benzoate use.

To avoid this, pen layout changes will normally require an associated reduction in the currently permitted quantity of emamectin benzoate. The reduction will be scaled to prevent the interim standard being exceeded in new areas of seabed. If an application for the pen layout change is not also an application relating to emamectin benzoate use, we will initiate the required variation of the permit to reduce the permitted quantity of emamectin benzoate.

The following approach will be used to calculate the reduction required (see also Figure 1 for a summary):

- a) The size and location of the area of seabed exceeding the interim standard (23.5ng/kg of sediment dry weight) under the existing pen layout¹ will be modelled.

¹ The “existing layout” means the layout prior to the introduction of the November 2018 interim position statement

- b) The size and location of the area of seabed that would exceed the interim standard 23.5ng/kg of sediment dw) under the proposed changes in pen layout will be modelled.
- c) If the area identified in (b) is larger than the area identified in (a) or includes a different part of the seabed, iterative modelling assessments will be undertaken to determine the reduction in the permitted quantity of emamectin benzoate necessary for the area of seabed affected under the new pen layout to remain within the area identified in (a).
- d) For the purposes of assessing whether different parts of the seabed would be affected, only modelled differences in footprint location greater than 15% will be taken into account. Differences smaller than this are likely to be artefacts of model uncertainty rather than of real differences in footprint location.

Where the proposed pen layout changes would relocate the farm's deposition footprint fully outwith the existing deposition footprint, the proposal will be treated in the same way under the interim position statement as a proposal to use emamectin benzoate for the first time: The permitted quantity of emamectin benzoate will be varied to be consistent with the achievement of the interim environmental standard (23.5ng/kg of sediment dry weight) at the edge of the farm's 100 metre mixing zone.

We will advise applicants of the implications of their proposals with respect to permitted emamectin benzoate quantities prior to issuing varied authorisations. This will allow applicants to decide whether or not they wish to withdraw their applications.

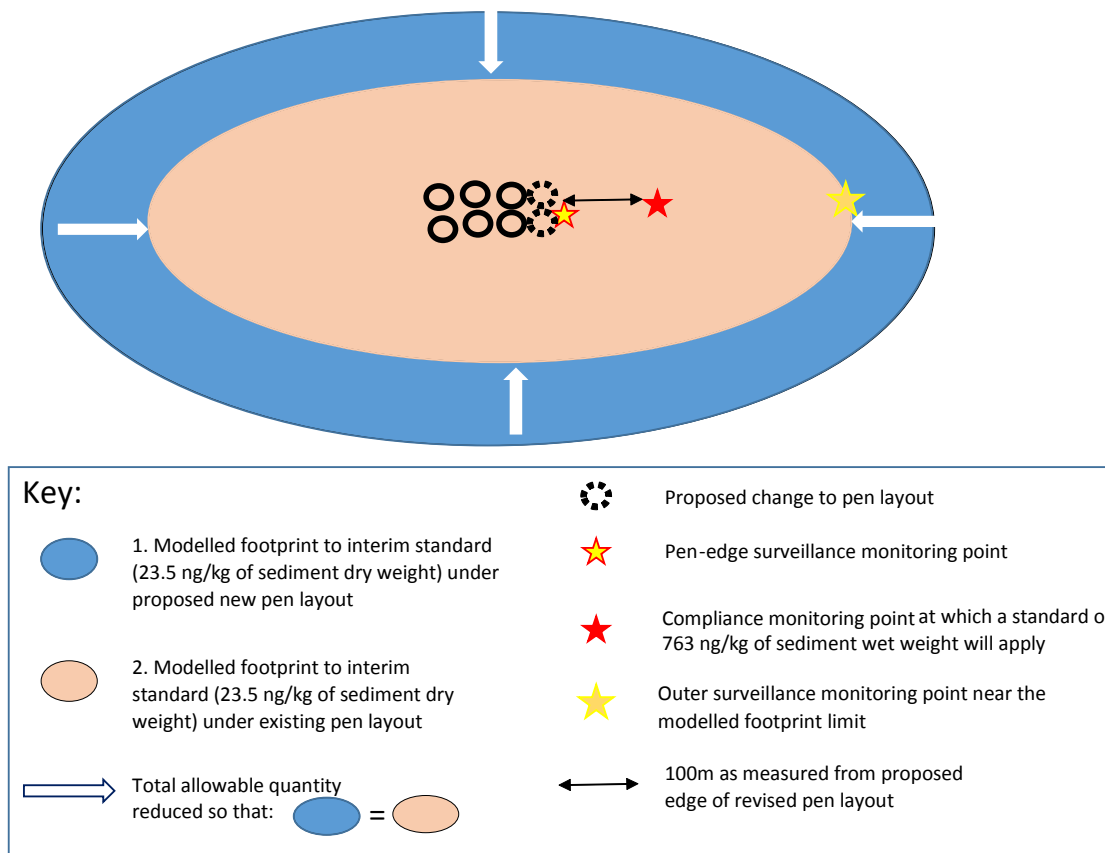


Figure 1: Summary of the approach for proposed changes to pen layouts

2. Monitoring environmental performance where pen layouts changes are authorised

Where emamectin benzoate quantities are reduced to ensure the area of deposition resulting from the revised pen layout remains within the existing area of deposition, the following monitoring locations and requirements will be added to the monitoring plan for the site:

Monitoring locations	Quantification of emamectin benzoate required
(1) A location 100 metres from the edge of the new pen layout	Able to determine whether concentrations are less than 763 ng/kg of sediment wet weight
(2) A location at the outer edge of the footprint of deposition determined in (c) above	Able to determine whether concentrations are less than 23.5 ng/kg of sediment dry weight

(3) A location at the edge of the new pen layout	Able to determine whether concentrations are less than 7,630 ng/kg of sediment wet weight
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A requirement not to exceed a concentration of emamectin benzoate at monitoring location (1) of 763 ng/kg of sediment wet weight will be included as a condition of the authorisation.

Monitoring locations 2 and 3 will act as surveillance monitoring sites.