EAST MOCLETT MEDICINE MINIMISATION PLAN

1. Introduction

This Medicine Minimisation Plan (MMP) has been prepared by Cooke Aquaculture Scotland Ltd (CAS) to support the submission of a CAR Licence application for the proposed Marine Fish Farm, East Moclett. It outlines the proposed measures to ensure that medicine use is minimised at the proposed site.

2. Medicines

CAS have developed a particle tracking model to simulate simultaneous bath medicine releases at the proposed East Moclett site. The model outputs followed the precautionary principle to outline amounts of bath chemicals that can be released at the site whilst ensuring compliance with environmental standards. Owing to the different mechanisms of release, wellboat and tarp discharges have been modelled separately for each medicine. A summary of bath treatment results can be seen in Table 1.

Table 1. A summary of bath treatment results for the proposed East Moclett fish farm.

	In-feed	Wellboat Release	Tarpaulin Release
Emamectin Benzoate			
Consent mass (g)	1.5	-	-
Azamethiphos			
Consent mass – 3hr (g)	-	335.03	295.5
Consent mass – 24hr (g)	-	1005.1	886.6
Cypermethrin			
Consent mass 6hr (g)	-	0.131	0.135
Deltamethrin			
Consent mass 6hr (g)	-	92	93

These medicines may be used at the site as a measure of sea lice and disease control. Fish are monitored continuously for the presence of parasites. A treatment will be conducted if *L. salmonis* lice levels reach the SSPO CoGP suggested treatment trigger thresholds, or, if fish health and welfare is put at risk due to a lice infestation and/or disease. However, medical treatments form only one part of a fish health and welfare management strategy that CAS employs.

3. Alternative Treatment Methods

A fully integrated Fish Health and Welfare Strategy at the proposed site will minimise the potential for sea lice challenges at the proposed site in the first instance, with a suite of treatments actioned if required. Prevention methods include: weekly sampling to assess lice population dynamics; low stocking densities at the site; coordinated fallow and stocking periods; and a site specific Veterinary Health Plan. Further preventative measures include physical barriers to lice infection (e.g. lice skirts), selection of broodstock with increased resistance to lice, larger smolts, and biological control in the form of cleanerfish.

Should intervention be required, CAS would preferentially use physical treatment methods such as the dedicated hydrolicer unit, or thermolicer units to negate the use of chemotherapuetants. Persistent use of physical lice removal treatments also reduces the genetic resistance of lice to chemical treatment agents, increasing the efficacy of such treatments should they be required to supplement the hydrolicer at any point. CAS also utilise freshwater treatments as an effective strategy against both sea lice and Ameobic Gill Disease (AGD).

4. Review

The MMP will be reviewed at the end of each production cycle and will be revised as necessary.