



Marine Fish Farm: **Stulaigh South** Stulaigh South Bath Auto Report

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1 INTRODUCTION

This report has been prepared by Mowi Scotland Ltd. to meet the requirements of the Scottish Environment Protection Agency (SEPA) for an application to use topical sealice veterinary medicines on a new proposed marine salmon farm, **Stulaigh South**, South Uist (Figure 1). The report presents results from the BathAuto model for the topical medicines Cypermethrin and Deltamethrin to determine EQS-compliant quantities for the proposed site biomass and equipment. The dispersion of azamethiphos is described in a separate bath modelling report.



Figure 1. Location of the proposed Stulaigh South salmon farm (top) and the location of the ADCP deployments ID208 and ID224 (both from 2018) (▲) relative to the proposed pen positions (●).

1.1 Site Details

The site is situated adjacent to the east coast of the Isle of South Uist (Figure 1). Details of the site are provided in Table 1. The receiving water is defined as open water. Current meter data used with BathAuto was collected adjacent to the site (ID208, Figure 1, Table 1). A hydrographic report describing the current data is included with the application.

Table 1. Project Information

Site Details	
Site Name:	Stulaigh South
Site location:	South Uist
Peak biomass (T):	3,000
Proposed feed load (T/yr):	7,665
Proposed treatment use:	Azamethiphos, Cypermethrin, Deltamethrin
Pen Details	
Group location:	NF833221
Number of pens:	6
Pen dimensions:	200m circumference
Grid matrix (m)	120
Working Depth (m):	16
Pen group configuration:	2 x 3
Pen group orientation (°G):	165
Pen group distance to shore (km):	0.39
Water depth at site (m):	43
Hydrographic Data	
Current Meter record ID:	ID208
Current meter position:	83371, 822233
Depth at deployment position (m):	43
Surface bin centre height above bed (m):	36.71
Middle bin centre height above bed (m):	29.71
Bottom bin centre height above bed (m):	3.71
Duration of record (days):	39
Start of record:	08/03/2018
End of record:	17/04/2018
Current meter averaging interval (min):	20

2 BathAuto Results

An equivalent to BathAuto was run using current parameters derived from the analysis of the near-surface cell from current meter deployment ID208. Pen details are given in Table 1. The pen treatment depth used for the bath treatments was 2.36m. EQS compliance for Cypermethrin and Deltamethrin was predicted at this cage depth.

Deltamethrin Results:

Cage Treatment Depth = 2.36m

Permissible Quantity of Cypermethrin = 68g; 1.80 pens/6 hours

Permissible Quantity of Deltamethrin = 25g; 1.69 pens/6 hours

The bath treatment model files are saved in the folder: *Modelling\BathAuto*