Proposed Marine Fish Farm: Muck

Licence reference: CAR/L/1109999

Annex 6. Muck 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 marine salmon farm, **Muck**, at Isle of Muck (Figure 1). The report presents results from the BathAuto model for the topical medicine 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.

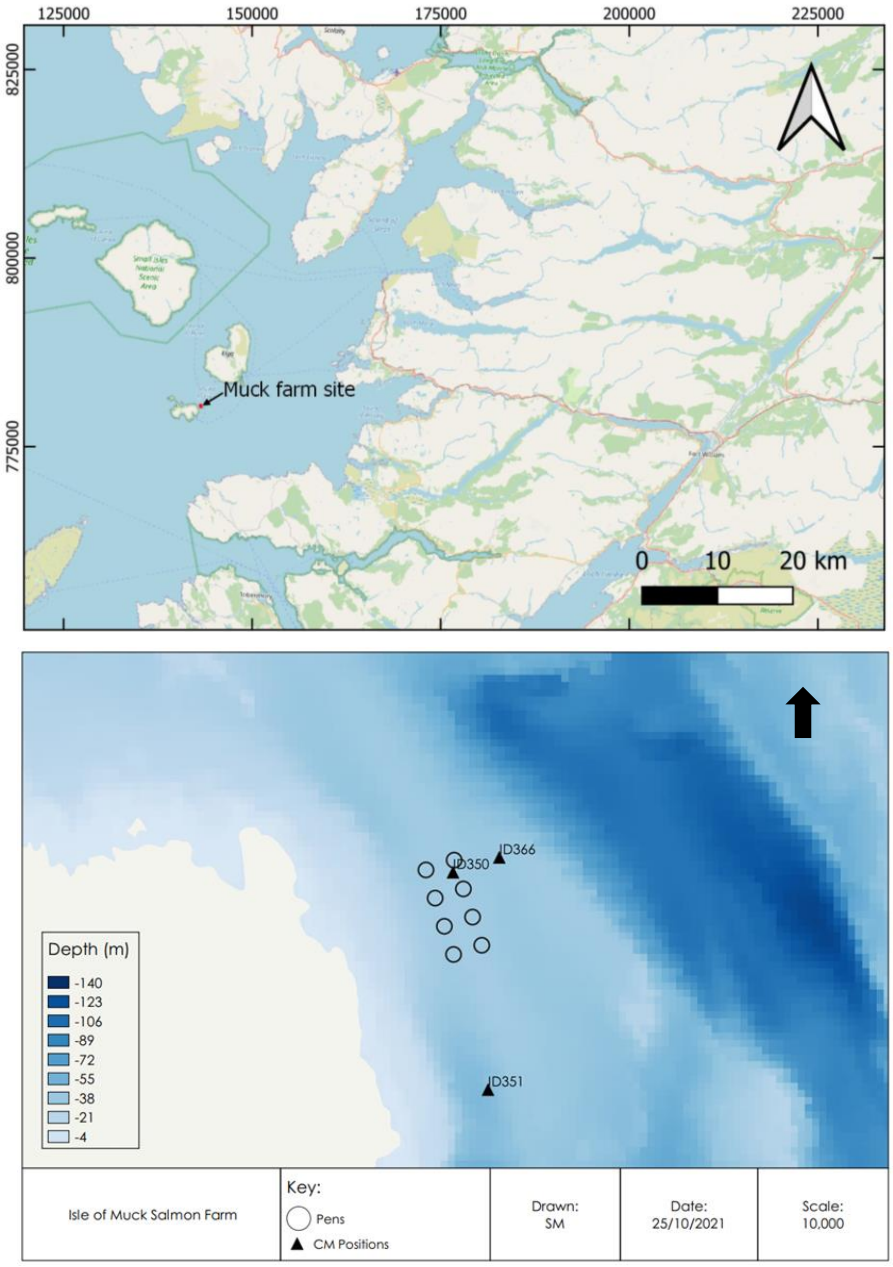

Figure 1. Location of Muck salmon farm (top) and the location of the ADCP deployments ID350 (2010), ID351 (2010) and ID366 (2021) (▲) relative to the proposed pen positions (**o**).

1.1 Site Details

The site is situated adjacent to the northeast coast of the Isle of Muck (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 (ID350, Figure 1, Table 1). A hydrographic report describing the current data is included with the application.

Table 1. Project Information

SITE DETAILS	
Site Name:	Muck
Site location:	Isle of Muck
Peak biomass (T):	4,069
Proposed feed load (T/yr):	10,396
Proposed treatment use:	Azamethiphos, Deltamethrin
PEN DETAILS	
Group location:	NM 43201 80365
Number of pens:	8
Pen dimensions:	160m circumference
Grid matrix (m)	100
Working Depth (m):	15
Pen group configuration:	2 x 4
Pen group orientation (°G):	-18
Pen group distance to shore (km):	0.4
Water depth at site (m):	35
HYDROGRAPHIC DATA	
Current Meter record ID:	**ID350**
Current meter position:	143198, 780484
Depth at deployment position (m):	35.6
Surface bin centre height above bed (m):	28.42
Middle bin centre height above bed (m):	17.42
Bottom bin centre height above bed (m):	3.42
Duration of record (days):	41
Start of record:	08-April-2010
End of record:	19-May-2010
Current meter averaging interval (min):	20

2 BathAuto Results

BathAuto was run using current parameters derived from the analysis of the near-surface cell from current meter deployment ID350. Pen details are given in Table 1. The pen treatment depth used for the bath treatments was 3.0m. EQS compliance for Deltamethrin was predicted at this cage depth.

Deltamethrin Results:
Cage Treatment Depth = 3.0m
Permissible Quantity of Deltamethrin = 45g; 3.67 pens/6 hours

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