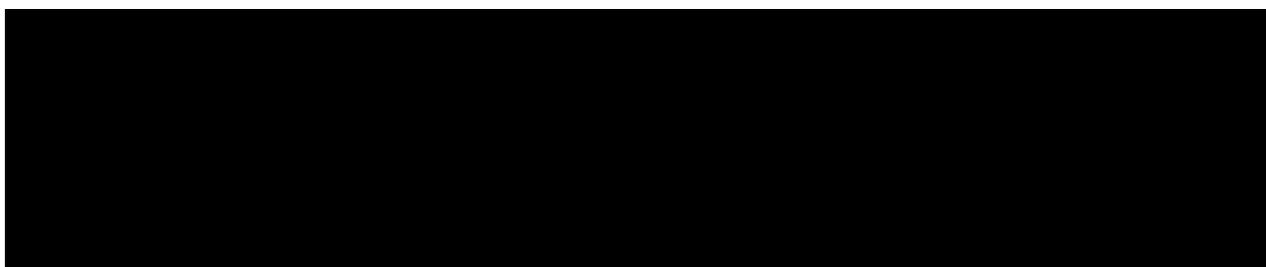


Maol Ban, Inner Sound

BathAuto Modelling Report

CAR/L/1009643/C1/V4

December 2021



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, **Maol Ban**, in the Inner Sound, Isle of Skye (Figure 1). Mowi Scotland Ltd. propose to change the existing site from 12 x 100 m circumference pens held in a 65 m grid (Figure 1) to 5 x 160 m circumference pens with 15 m deep nets, held in a 100 m grid.

Mowi Scotland Ltd have carried out modelling for bath medicines using BathAuto. Results from the modelling are described in this report.

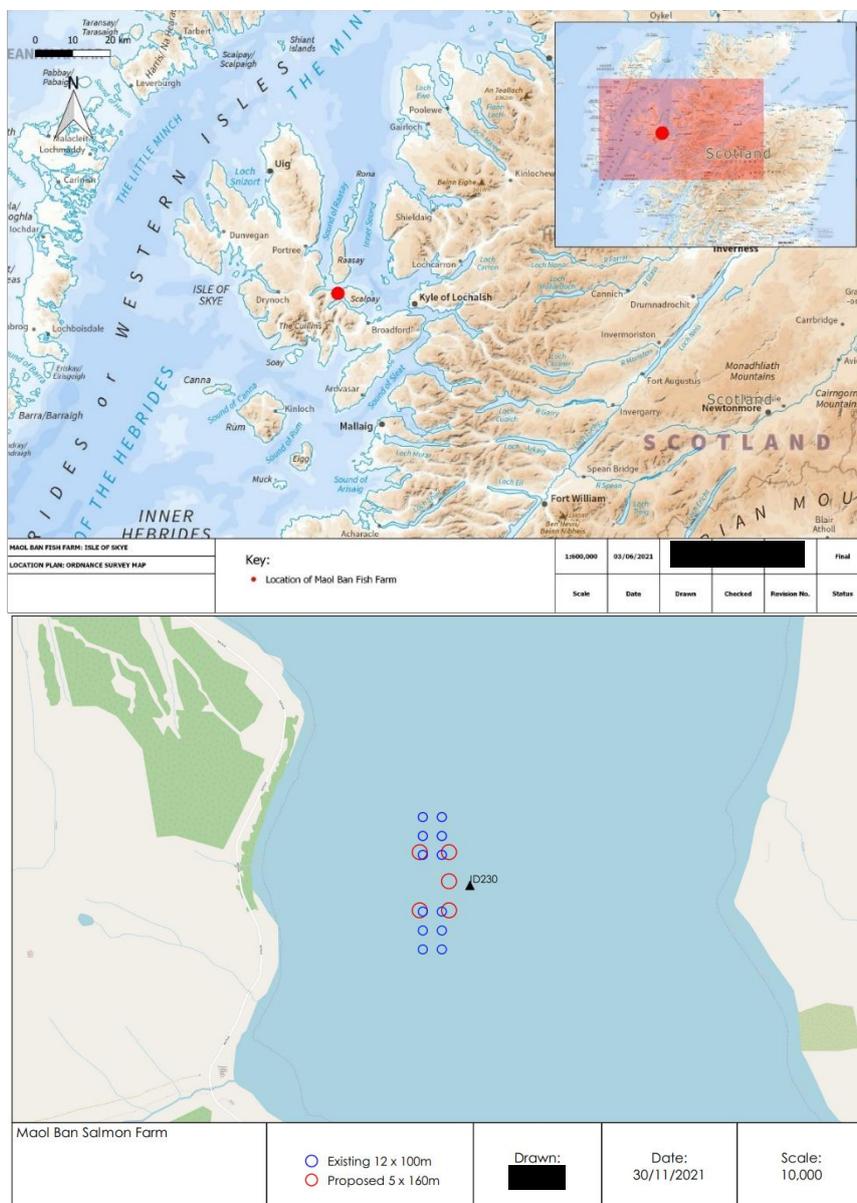


Figure 1. Site location (top) and layout (bottom) of the salmon farm at Maol Ban. The current meter deployment location ID230 is marked by the black triangle.

1.1 Site Details

The site is situated adjacent to the western shore of the Inner Sound off the Isle of Skye (Figure 1). Details of the site are provided in Table 1. The receiving water is defined as a strait. Current meter data used with BathAuto was collected adjacent to the site (ID230, Figure 1, Table 1). A hydrographic report describing the current data is included with the application.

Table 1. Project Information

SITE DETAILS	
Site Name:	Maol Ban
Site location:	Inner Sound
Peak biomass (T):	2,250
Proposed feed load (T/yr):	5,749
Proposed treatment use:	Azamethiphos Deltamethrin
PEN DETAILS	
Group location:	NG56743110
Number of pens:	5
Pen dimensions:	160m circumference
Grid matrix (m)	100
Working Depth (m):	15
Pen group configuration:	1 x 2 + 1 x 3
Pen group orientation (°G):	0
Pen group distance to shore (km):	0.5
Water depth at site (m):	~50
HYDROGRAPHIC DATA	
Current Meter record ID:	ID230
Current meter position:	156893E 830997N
Depth at deployment position (m):	56.3
Surface bin centre height above bed (m):	45.7
Middle bin centre height above bed (m):	40.7
Bottom bin centre height above bed (m):	3.7
Duration of record (days):	58
Start of record:	05-July-2018
End of record:	02-Sept-2018
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 ID230. Cage details are given in Table 1. The cage treatment depth used for the bath treatments was 1.1m. EQS compliance for both Deltamethrin and Azamethiphos was predicted at this cage depth.

Deltamethrin Results:

Cage Treatment Depth = 1.1m

Permissible Quantity of Deltamethrin = 15.3g; 3.4 cages/3 hours

Azamethiphos Results:

Cage treatment depth = 1.1m

Permissible Quantity of Azamethiphos = 224.7g; 1.0 cages/3 hours

Permissible Quantity of Azamethiphos = 447.7g; 2.0 cages/24 hours

The bath treatment model files are saved in the file: *MaolBan_bathauto_v5.xls*